

Education in the Asia-Pacific Region:
Issues, Concerns and Prospects 42

Gerald W. Fry *Editor*

Education in Thailand

An Old Elephant in Search of a New
Mahout



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This book is dedicated to my late caring father (Enos), my loving wife (Tasanee), and my devoted son (Terry) and his new wife (Heather). It is also dedicated to the many outstanding mentors and teachers I have had during the course of my life, too many to name here.

Foreword

A Comprehensive, Comparative, and Empirical Study

This volume is extremely comprehensive covering all levels of education from preschool to higher education and even lifelong education. Professor Mark Bray (2017) of the University of Hong Kong in his recent presidential address to the Comparative and International Education Society stressed that education is much more than formal schooling. In that regard, I am particularly pleased that the book includes chapters not only on formal education but also nonformal, informal, and alternative education as well as an important chapter on religion and educational development. Reading this volume, I have become familiar with much new material on Thai education on such topics as education for the disadvantaged, alternative education, shadow education, and Buddhist-oriented assessment approaches.

Particularly, the coverage of special education including education for the gifted and talented and education of the disadvantaged, which HRH Princess Maha Chakri Sirindhorn described, was indeed impressive. She has devoted her work to the development of many schools in remote and disadvantaged areas (Chaps. 1 and 12). I am sure that the readers of the volume will broaden their perspectives on Thai education and deepen their understanding of its multidimensional domains.

Most books in English describing Thai education as a whole were published in the beginning of the 1970s. For example, *Education in Thailand: A Century of Experience* (1970), edited by Ekavidya Nathalang, provided mainly information on the historical development of school education including educational administration, curriculum and teaching, educational schemes (school system and structure), and social and economic background on Thai society in the current Bangkok period. There was also mention of Thailand's indigenous philosophy of education, but the volume covered neither higher education nor nonformal education.

A well-known and important later book titled *Educational Development in Thailand* (1980) by Keith Watson dealt with the history of Thai education from the sixth to twentieth centuries stressing the influence of Buddhism, Western missionaries, and the growth of nationalism. It also analyzed education for national develop-

ment in modern times. But it did not refer to lifelong education, alternative education, informal education, or the more recent important education reforms after the 1980s.

I also published a book titled *Educational Development in Thailand: National Integration, Culture and Educational Cooperation* (2007), the major book in the Japanese language on Thai education. This book stresses the historical development of Thai education, including national development plans and policies. The education for national integration is also analyzed focusing on the education provided for ethnically diverse groups such as the Chinese, Muslims, and the children of hill peoples. Essentially the main focus was on school education. There was reference to the new progressive constitution of 1997 and the 1999 National Education Act, but I did not examine those influences in terms of their actual subsequent implementation in Thai schools.

There have been excellent and insightful volumes on the education reforms under King Rama V written by David K. Wyatt (1969) and Wutichai Moonshin (2011). The former was titled *The Politics of Reform in Thailand: Education in the Reign of King Chulalongkorn*. The latter was titled *Kanpathiroop Kansueksa nai Rachakan thi 5 [Education Reform in the Reign of Rama V]*. Those two books focus on one particular aspect of Thai education.

Most recently, the OECD and UNESCO (2016) published an important joint study titled *Education in Thailand: An OECD-UNESCO Perspective*. Actually it represents a valuable complement to this book. The OECD-UNESCO volume has a much narrower specific focus with four key topical chapters on curriculum, assessment, teachers and school leaders, and information and communication technology in education. The volume also presents many “best” practices and policies from other nations, primarily East Asia, Europe, and the USA, from which the Thais might learn. And probably, most importantly in sharp contrast to this volume, the OECD-UNESCO study is written by non-Thais and the majority of citations are of Western scholarly work.

This volume includes considerable comparative analysis, ironically rare in the “comparative” field. Several chapters introduce the results of international achievement tests such as PISA and TIMSS and clarified the situation in Thailand (Chaps. 1, 5, 6, 13 and 19). Policies and data are cited from international organizations like UNESCO, ILO, UNDP, OECD, the World Bank, and ASEAN (Chaps. 7, 9 and 16). Seeing internationalization plan tables of universities by countries and expenditures on education in ASEAN countries or the Knowledge Economy Index (Chaps. 11 and 17) helps us better understand the international rank and related problems of Thai education. The system of school leaders was carefully compared with that of the USA, UK, Canada, Australia, Hong Kong, and Singapore (Chap. 22).

Related to the extensive comparative analysis, the contributors to this volume draw heavily on empirical and analytical data. Nearly all the chapters are based on extensive research. Chapter 14 on regional disparities is based on a comprehensive data set with extensive empirical data on all 77 provinces of Thailand. Therefore, the assertions of the authors are highly reliable and credible. Also the editor, Professor Fry, did considerable member checking to try to minimize distortions, misrepresentations, and errors.

Important Challenges and Problems: Future-Oriented Analysis

The volume is also future-oriented, pointing out important issues and policies as well as various problems of Thai education that reflect future challenges and opportunities. Reading the volume, we understand that there have been both failures and successes in the development of Thai education and there are still many persisting serious problems. I will summarize five main challenges, related problems, and issues which were identified in various chapters of this volume.

First, there is the success of the quantitative expansion of educational opportunities from primary to higher education. Thailand has made bold efforts to try to realize “Education for All,” especially the establishment of basic education. Compulsory education is now 9 years and free education is for 12 years as mandated by the 1999 National Education Act. Higher education is now accessible to many people reaching the level of *massification* because many private universities, open universities, and local colleges have been established (Chap. 9). Lifelong education is also provided by means of nonformal education (Chap. 8).

At the same time there are serious problems of educational opportunities: the inequality between urban and rural areas and disparities in educational achievement among provinces and regions (Chaps. 13 and 14). Moreover, educational opportunities for the disadvantaged and children from diverse ethnic groups are often lacking (Chaps. 5, 12 and 15). These inequality and disparity problems identified seem to be mainly caused by unequal resource allocation including both facilities and personnel.

In Japan, the central government supports local organizations in terms of education, welfare, and transportation infrastructure. It is based on the tax law for subsidies to local organizations. Getting such subsidies from the government, poor local provinces and municipalities can maintain almost an equal level of educational facilities and standards compared to rich ones (Cummings 1980; Murata 2004).

Second, though the quality of education in Thailand has improved, it is still found to be low. Achievement results of Thai students in PISA were much lower than the mean for participant countries. But the Thai performance was not so poor, compared to those students in countries with a similar level of economic development such as Indonesia, Costa Rica, and Brazil (Chaps. 6 and 27).

UNICEF data showed that 20% of ECCD (Early Childhood Care and Development) centers were considered to be of poor quality, understaffed, and poorly equipped in 2012 (Chap. 5). And judging from the results of international and national tests, PISA and O-NET, respectively, the quality of Thai education is said to be low, particularly in basic cognitive skills (Chap. 19). Nevertheless, the authors of Chap. 19 “Quality Issues of Education in Thailand” state that “The low quality of Thai education is not the fruit of a comprehensive, deep, and objective diagnosis.”

The main causes of low quality of education were identified:

- Learning-teaching process is not a student-centered approach and neither creative nor analytical (Chaps. 5 and 19).

- Assessment methods are not formative. The university entrance exams are done by means of standardized tests, not giving adequate weight to high school performance (Chap. 6). The book notes how that is now changing with more weight being given to high school performance (see Chap. 24).
- In small and remote schools, teaching materials and facilities are often outdated and qualified teachers are lacking (Chaps. 5, 13 and 14).
- Diploma-oriented education is stressed leading to a serious diploma disease and excessive credentialism (Chaps. 9 and 19).
- Market-oriented education is increasingly stressed and education is becoming a business (Chap. 19).

To enhance the quality of education, education should promote students to have critical thinking, creativity, language proficiency, teamwork, curiosity to learn, and responsibility to self and others (Chaps. 5, 14 and 19). For quality assurance, the Office for National Education Standards and Quality Assessment (ONESQA) was established to require all schools at every level to be assessed every 5 years. It is proposed that quality permanent research centers should be established to make comprehensive, deep, and program-based studies for enhancing the quality of education (Chaps. 19 and 20).

Third, decentralization and area-based approaches to education need to be emphasized. The bureaucracy of the Ministry of Education was overcentralized and the inefficiency of educational central administration was also criticized. And in the 1999 National Education Act, decentralization of central administration was promoted and 175 local Education Service Areas (ESAs) were established. Thai schools can decide 30% of their curriculum, though the schools and teachers are required to undertake strict evaluation. Many schools have a school management committee, the members of which are composed of community, parent, and teacher representatives. Such committees can help secure funds and facilities for schools and also may evaluate school management.

As rural schools usually have low quality, so area-based education (ABE) is proposed which is more responsive to local contents, needs, and the distinctive demands of each area. At the same time, there is a proposed multiplayer system to promote participation from all parties concerned, especially those from private industry sectors and local administrative bodies to help realize the new concept of “Learning for Life and Career” in schools (Chaps. 4, 6 and 27).

Fourth, teacher education is discussed as an extremely crucial problem and issue.

Teachers college became Rajabhat Institutes in 1995 as comprehensive higher education institutes. Then they were upgraded to Rajabhat Universities in 2004. There are 176 teacher education programs in 113 universities/colleges/institutes. As required by the new law “Teacher and Educational Personnel Council Act 2003,” all teachers must have a teacher license. To obtain the license, the students must receive 5 years of training and earn a bachelor’s degree in education (Chap. 18).

In terms of teacher education, three main problems are identified. The first is a disparity between teacher supply and demand. The second is the lack of teachers in core subjects such as mathematics, science, and English resulting in the practice of

out-of-field teaching. The third is a critical need to redesign teacher education programs (both preservice and in-service training) (Chap. 18).

Essentially the following problems are identified:

- Teaching method is still a teacher-centered approach, not a student-centered one.
- Many small and remote schools lack qualified teachers and those schools are of low quality.
- The teachers are busy in nonacademic, administrative tasks and cannot concentrate on teaching students.
- The teachers do not know authentic formative assessment methods.

In Thailand, school teachers usually do not move to other schools but stay in one school for a long time. On the other hand, in Japan, the teachers of public schools transfer to other schools every 3–6 years. By this type of transfer and rotation system, good qualified teachers go to small and remote schools. The new and remaining teachers can stimulate each other and learn how to teach and manage classrooms and schools.

As Dr. Pruet mentions in Chap. 18, “The Open Approach: Lesson Study” has been introduced to Thailand by Dr. Maitree Inprasitha, dean of the Faculty of Education, Khon Kaen University, since 2002. The lesson study is very popular in Japan. The teachers of many schools come together to a school on a lesson study day. They observe model teaching in a classroom. After that, they exchange opinions about the model teaching and study how to teach in a better way by themselves.

Fifth, education reforms were discussed both historically and with a future-oriented perspective. Thus far major education reforms were implemented three times in Thailand (Chap. 21).

The first was for the establishment of the modern education system initiated by King Rama V (King Chulalongkorn the Great). Its main aim was to prepare capable persons to serve as civil servants in the country’s new bureaucratic system and to transform the education system from a religious to a secular one.

Dr. Wuthichai introduced the rare fact in his book that King Rama V made a new draft of a Siam Imperial Rescript, being modeled on the Japanese one. King Rama V wanted to implement it in Siam to bring about national integration and development. But regrettably he passed in 1911 just 1 year after completion of the draft and, thus, the Siam Imperial Rescript was never put into practice.

The second major attempt at education reform occurred after the dramatic student uprising in October 1973. The proposal for education reform, *Education for Life and Society*, was regarded as an attempt to create Thai society for a new era in which importance was placed on equality, equity, freedom, nationality, social awareness, and desirable social values. The educational system changed from a 4-3-3-2 to a 6-3-3 system. The curriculum was revised with an emphasis on the cultivation of thinking, problem-solving ability, and intellectual openness and diversity. The administration of primary education was transferred from the Ministry of Interior back to the Ministry of Education, an important structural change with implications for expanding opportunities for lower secondary education in remote rural areas.

The current education reform is considered the third major reform based on the enactment of the progressive constitution of 1997 and the mandated promulgation of the 1999 National Education Act. The ultimate goal of education reform was to form a learning society, to widen the scope of education from the formal education within schools to lifelong education with diverse learning components and providers. The main purposes of the education reform have been as follows:

To establish a 9-year compulsory education and 12 years of basic education free for all.

To promote lifelong education, student-centered learning, and a quality assurance system.

To establish juristic schools, autonomous universities, and 5-year teacher education.

To implement per head budgeting in schools.

However, Dr. Waraiporn in Chap. 21 notes that those reforms were rather difficult to realize for the following reasons: The first is the resistance to change by government officials. The second is the political instability and the frequent changes of government (see Appendix I). The third is a lack of nonpartisan, strong leadership, and independent organizations advocating for education reform (Chap. 21).

Thai Educational Paradoxes

It is also valuable that in this book major educational paradoxes are identified. Thailand has a well-educated teacher workforce with most holding a bachelor's degree. The salaries of teachers have increased, and the Thai government has invested a high percentage of its national budget in education. There have been many prominent talented Thai educators who contributed to the development of education reforms such as the 1999 NEA (see Appendix II). Yet, test results both internationally and domestically are far from satisfactory (Chaps. 6, 24 and 27). Even though the achievement results of tests are not good and quality of education is not high, the students feel happy about their schooling and teachers (Chaps. 3 and 27), still another puzzling paradox.

Some Particularly Noteworthy Aspects of Thai Education

I am pleased to see that the important role of scouting in Thai education (Chap. 6) is noted as an important vision of King Rama VI, how it is a formal part of the school curriculum and its current relevance with an emphasis on character development, moral education, and national integration.

Also in Chap. 11 on the internationalization of Thai education, it is noted that such initiatives are not limited to elite institutions in Bangkok but also are occurring in more remote regional areas such as Khon Kaen, Mahasarakham, and Udon in the northeast.

In the chapter on higher education (Chap. 9), I was pleased to see mention of how all Thai graduates of public universities receive their degrees personally from a member of the Royal Family. Also in the valuable synthesis chapter (Chap. 27), there is mention of the Royal Family's special contributions to Thai education with the late King being known as the "Teacher of the Land" and HRH Princess Maha Chakri Sirindhorn being described as the "academic princess."

Additional Important Initiatives

I want to mention several more important initiatives which I experienced directly and was highly impressed with in Thailand. Several of these are not mentioned in the volume or given inadequate attention.

The Buddhist Sunday Schools

In 1958, a Buddhist Sunday school was established in the Mahathat Temple, Bangkok, by the monks being modeled on those in Sri Lanka and Myanmar. In the 1970s, the Sunday schools spread to local places all over the country. In 1988 the Ministry of Education changed the name to the Buddhist Sunday Center. The ministry controlled those centers making regulations for establishment conditions, curriculum, and education levels.

When I visited some Sunday centers after 1992, I noticed that the Sunday centers had taught children not only Buddhist matters (history, principles, morals, meditation, etc.) but also English, computer skills, football for boys, and Thai dance for girls. After learning Buddhism, the children enjoy learning English and computer skills taught by the monks and also other contents. In 2004, I observed classes taught in Buddhist Sunday schools in Sri Lanka. Not monks but community citizens taught only Buddhist matters and did not teach other contents. Being aware of the different styles of teaching in the Sunday schools between two countries, I recognize that Thai people have made new initiatives and created new content and methods considering children's and community people's needs and demands.

A Peace Center in the Deep South

A peace center was established by the Suk-Kaew Kaewdang Foundation in Yala City in the southern part of Thailand in 2002. The foundation was organized by Dr. Rung Kaewdang, the former deputy minister of education (see Appendix II). In the deep southern part of Thailand, a huge Malay Muslim population lives together with Thai Buddhists. Many racial conflicts have occurred including terrorist attacks

by radical Muslims in recent years. That is the reason behind the peace center which is expected to bring peace in those areas (Murata 2016).

In the beginning, the center was called “A Peace College” where Muslim and Buddhist leaders in the area came together and tried to deepen mutual understanding through dialogue. Unfortunately, the dialogue was inclined to be superficial in understanding their cultural differences and personalities. Then Muslim and Buddhist people have begun to raise goats since 2007 and cattle since 2011. Through these types of joint projects, they deepened understanding of their cultures by having closer relationships of mutual trust. There have been valuable experiences for Muslim and Buddhist people to have worked together making new feed, grazing animals, and producing cow milk. In September of 2015, I actually visited the peace center and confirmed the real cattle raising conducted by villagers. As Dr. Rung asked me to give a name to a new calf, I named him “Rokko” originated from a mountain in Kobe, Japan. He has grown up to be a healthy cow, thanks to the elaborate joint work. This kind of challenging effort in cooperation is expected to facilitate the Muslim and Buddhist people reconciling and their communities becoming more peaceful.

Education for Becoming ASEAN Citizens

Currently, education for ASEAN citizens is becoming popular in Thai schools. In 2014 and 2016, I visited some primary and secondary schools in Chiang Mai and observed some classes in which students were being taught about the cultures and societies of ASEAN countries. In primary schools, the attributes of ASEAN countries such as the national flag, national flowers, national costumes, currency, national leaders, and greeting phrases were being taught. In upper secondary schools, the differences of culture, economic, and political problems in ASEAN countries were discussed in the classes. Some schools held an ASEAN day when the students introduced national flags, songs, and dances of those countries.

It is particularly remarkable in Thai education to stress the identity acknowledgment as ASEAN citizens, as well as Thai citizens, through learning about the cultures and societies of various ASEAN countries (Murata 2016).

The Bright Sides of Thai Education and the Necessity of Creative Synthesis

Contributors to this volume note some positive points about Thai education despite recognizing many problems. Thai students were ranked among the highest in the world in being happy. This might be influenced by traditional Buddhism in Thailand. As explained by Dr. Gerald Fry in Chap. 3, Buddhism has many factors that can contribute to a good education. For example, there are cosmopolitan ethics

influenced by karma, metta, uppekha, and humility by mindfulness (*sati*). Buddhist epistemology calls for us to be critical and skeptical about various knowledge claims. It stresses to base our thinking on direct experience and empirical evidence. All this is consistent with student-centered learning and evidence-based decision-making.

In Chap. 1, HRH Princess Maha Chakri Sirindhorn emphasizes the importance of traditional holistic education which is related to Buddhism. She also introduces various teaching and learning styles suited to the needs of students with different backgrounds which were practiced by monks. In Chap. 12, she shares the tradition that Thai people have an attitude of leaving their homes to seek knowledge and teachers, mostly old monks or hermits. There may also be value in studying far away from home so that one can be independent and take care of oneself. These values are reflected in the current popularity of study abroad among Thais.

In *Education in Thailand: Some Thai Perspectives* (1973), Phra Maha Chai Abhakro stated that our society has been modernizing more and more to become an “intellectual colony” of the West. In the general information of the same book, Louis J. Setti added that “The goal is, in the current Thai context, syntheses – a society that grows technologically and economically and at the same time, maintains the sociocultural strengths of its heritage... It is also necessary to perceive how the Thai view the non-Thai influences and their own tradition and history, and to understand and respect their projected views of the ideal synthesis.” In Chap. 24, the authors commented that for Thailand to achieve its long-term potential as a vibrant dynamic economy/society and AEC leader, it is imperative to rethink education in highly creative ways.

Without becoming an intellectual colony, how will Thai education realize the synthesis in creative ways between a modern education with the purpose of technological and economic development and a traditional education drawing on indigenous culture? To consider this crucial tension in Thai education, this volume is particularly useful because it notes the good points reinforced by important historical traditions as well as future-oriented issues anticipating the emergence of the AEC era and the continued expansion of globalization.

Some Distinctive Features of the Book

In closing, I would like to note some rather distinctive and unusual features of the book. First, the 31 contributors represent rather remarkable diversity and talent ranging from HRH Princess Maha Chakri Sirindhorn to an educator from remote Isan. The Thai contributors come from diverse organizations such as leading universities (e.g., Chulalongkorn, Mahidol, and Thammasat), influential research-related offices (NSTDA, STI, TDRI, and OEC), and international organizations (UNESCO, World Bank). There is an excellent balance between female and male authors. Among Thai scholars, there are senior well-known figures and young rising stars. While most contributors are appropriately Thais, there are also contributors from China, Canada, France, and the USA.

Second, the chapters draw on diverse research sources, including many Thai language materials and important gray literature. Numerous chapters include important Thai language constructs related to education, which when introduced also are presented in the Thai script. Third, the book includes a valuable appendix with the biographies of a large number of prominent Thai educators, past and present, most mentioned in the book. Fourth, the book is extremely current, for example, mentioning the visit of HRH Princess Maha Chakri to a remote Isan school in Bueng Kan on May 25, 2017, and including numerous 2017 references. Fifth, and most importantly, I am really pleased with the book's balance. Most writing on Thailand tends to be overly negative or positive. Professor Fry, as editor, has made every effort to be as balanced as possible in presenting this comprehensive credible analysis of Thai education, past, present, and future.

Final Words of Appreciation

Lastly, I very much appreciate the wonderful overall efforts by Dr. Gerald W. Fry as an editor and contributor to this volume. He has sharply analyzed the characteristics of Thai education with acute insights, based on his research on Thailand during the past six decades. I was impressed with his broad perspectives to clarify major problems, challenges, paradoxes, tensions, and policy changes in Thai education taking into consideration in a balanced way both its bright and dark sides. He also developed an appropriate research design for the book drawing on comprehensive, empirical, comparative, and future-oriented methods. Owing to the dedicated and detailed analysis of Thai education by diverse and talented contributors, this volume is extremely rich in content and highly informative, insightful, and interesting.

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Preface

This introduction is comprised of four parts: (1) my positionality, (2) the contributors, (3) content and coverage of the book, and (4) technical matters such as how to cite Thai authors.

My Positionality

Scholars such as the late Nobel Prize winner Gunnar Myrdal (1969) and Ruth Behar (1996) emphasize that it is important for researchers to share and be explicit about their basic value premises. Myrdal argues that “objective” social science is a myth. Our value premises influence the questions we ask, how we interpret our findings, and certainly our normative policy suggestions derived from our research. My basic value premises are as follows:

- Ever since assisting Herman P. Miller (1964) with his book, *Rich Man, Poor Man*, way back in 1962, I have been committed to working toward greater equity in society and improved opportunities for the most disadvantaged.
- Now starting my sixth decade of work of doing research on Thailand, I have developed a real fondness for Thai society and culture and want the country to prosper and do well and want to see its education system reach the highest quality possible, so that all Thais will have the chance to realize their intellectual potential and capability.
- I have a strong belief in the value of cultural democracy and the importance of preserving cultural and linguistic diversity (Ramírez and Casteñeda 1974).
- I strongly believe in giving extremely high priority to education/human resource development and hope that many countries can realize a “peace dividend.” Peace and nonviolence are two of my most important values, rooted in my Amish and Buddhist backgrounds (Martin 2017).

Thus, it is impossible for a volume such as this to be totally “objective.” There are obviously subjective elements that influence both research methods and results.

Nevertheless, I have tried in every way to make the book as balanced as possible, presenting multiple and diverse perspectives on various issues and involving diverse contributors. For example, Achan Prapapat Niyom (the author of Chap. 26) is not trained as an educator and has been a leader in Thailand's alternative school movement having served as the vice-president of the Association of Thai Alternative Education since 2011. Thus, as expected she is largely positive in her assessment of the alternative school movement in Thailand.

The Contributors to This Volume

Two major criteria for selecting contributors were talent and diversity. I feel good about having achieved this goal. The collective contributors to this volume represent an impressive collective pool of expertise and knowledge of Thai education. There are roughly an equal number of female and male authors representing gender balance. While the vast majority of contributors are appropriately Thai, there are also authors from Canada, China, France, and the USA. Among contributors, there are senior scholars such as Dr. Yongyuth Yuthawong, Dr. Sumontra Promboon, and Dr. Sirilaksana Khoman, but also numerous younger scholars who are rising stars such as Dr. Dilaka Lathapipat, Dr. Rattana Lao, and Dr. Wanwisa Suebnusorn. There are contributors from diverse Thai universities such as Chulalongkorn, Mahidol, Srinakharinwirot, Sukothaithammathirat, and Thammasat as well as various Thai organizations such as the Office of the Education Council (OEC), the National Science and Technology Development Agency (NSTDA), the Thailand Development Research Institute (TDRI), the National Institute for Educational Testing Service (NIETS), and the National Science Technology and Innovation Policy Office (STI).

Content and Coverage of the Volume

Hopefully, this volume will help fill a major gap in the literature. The last books in English looking at the Thai education system as a whole were published in the beginning of the 1970s, namely, two volumes:

1. Ekavidya Nathalang's edited book, *Education in Thailand: A Century of Experience* (1970), published by the Thai Ministry of Education
2. Amnuay Tapingkae and Lou Setti's edited book, *Education in Thailand: Some Thai Perspectives* (1973), published by the US Department of Education

There have been other volumes written about Thai education in subsequent years, but these works specialize on a particular aspect of Thai education such as Wyatt's

excellent volume on the education reforms of King Rama V the Great (1969) or Keith Watson's valuable history of Thai education (1980). More recently (2015), Rattana Lao published a valuable study of university autonomy as part of higher education reform. In the past, ONEC and then OEC used to publish annual colorful attractive volumes on Thai education, but these were largely descriptive and statistical, not analytical. The last volume in this series was published in 2008 (OEC). Also various international agencies such as the World Bank and the UNDP have published country volumes on Thai education and/or human resource development. The most recent study of this type is a valuable one completed by OECD-UNESCO (2016). However, it focuses on just four key topics, namely, (1) curriculum, (2) assessment, (3) teachers and leaders, and (4) information and communication technologies in education.

Thus, this volume is intended to be comprehensive covering all aspects of Thai education including nonformal, informal, and alternative education as well as all levels of education from preschool to higher education. In the volume, there is also an attempt to be non-tempocentric. Unfortunately, much contemporary social science and educational research is myopic and ahistorical. In the first chapter of the book, HRH Princess Maha Chakri Sirindhorn has provided a valuable historical overview of Thai education. The last two chapters as well as a number of others include a serious look at future-oriented issues and policies.

Chapter 12, "Education of the Disadvantaged in Thailand," represents a new thrust in books on education. To my knowledge, no other scholar has identified the most disadvantaged groups in their society. The last group HRH describes, the extremely intelligent and gifted, may come as a surprise to many readers. While HRH is well aware that many in this group are actually advantaged, others are in fact disadvantaged and can become very frustrated and encounter serious problems. That is why she includes them. As a sad example in this regard and reflecting her insight on the seriousness of this issue, the second most gifted student in my own large high school class sadly committed suicide after graduating from Harvard.

A major gap in the book is a lack of explicit content on external and international influences on Thai education. This important element actually cuts across nearly all chapters but would certainly merit a whole book on its own, with perhaps chapters devoted to diverse donor agencies such as the World Bank, JICA, the Ford Foundation, and the Rockefeller Foundation.

In research of this type, member checking is important, since I am not Thai, but very much aware of the "crisis of representation." I wanted to make every effort to ensure that the volume neither misrepresents nor distorts Thailand or its realities. Toward this end, Khunying Dr. Kasama Varavan, a highly respected Thai educator (see Appendix II), kindly reviewed each chapter carefully for both quality control and identification of any distortions or misrepresentations. Nevertheless, I take full responsibility for any mistakes, errors, or misrepresentations that may remain.

Technical Matters

Since this is a volume about Thailand and since most of the authors are Thai, there are naturally many citations of Thai scholars and their works, both in Thai and English. Following the guidelines now recognized by major style systems (Chicago, APA, Harvard, MLA, Turabian, and the Library of Congress), all Thai authors are cited by their first, not last, names, since in Thailand first names function as last names in the West and East Asia. Also related to the bibliography, some contributors have included items in their reference list that were not directly cited in their chapters. Their hope is that these citations may be useful for those wishing to read more about the topics of their chapters.

For works cited that are in Thai, their titles are given in romanized Thai consistently following the system developed by the Royal Society of Thailand (formerly the Royal Institute). Also Thai words in the text, except for proper nouns, are transliterated using the same Royal Society system. The names of Thai provinces are spelled in accord with the system used officially by the Thai government through its National Statistical Office (NSO). Also all words from Thai or other languages are italicized.

Double quote marks are used to indicate direct quotations. Single quote marks are used to direct attention to a specific concept or word, or to indicate irony, for example.

Minneapolis, MN, USA

Gerald W. Fry

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I would also like to thank my talented editors at Springer, Lawrence Liu and Lay Peng Ang. I have had many able editors during my career, but these two individuals are certainly among the best, in terms of responding to my queries in a timely, responsive way and showing openness and flexibility to new ways of doing things.

I would like to express my sincere thanks to the 31 contributors to this volume. Without their active participation and collaboration, this book would have been impossible. I deeply appreciate their sincere and dedicated efforts to make their chapters the best they could be.

I owe a great debt of gratitude to Dr. Kasama Varavan, former permanent secretary of education and former secretary-general of OBEC, whose dedicated help has contributed enormously to whatever success this book may have. She provided valuable advice about potential contributors to chapters and assisted me in connecting with them. We had numerous discussions about the content of the book where she provided me valuable insights in trying to understand Thai education more deeply and reduce my related ignorance. She also kindly critically reviewed all chapters for total quality control and any misrepresentations or distortions.

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Series Editors' Introduction

This cutting-edge book edited by Gerald W. Fry, on *Education in Thailand: An Old Elephant in Search of a New Mahout*, is the latest volume to be published in the long-standing Springer book series Education in the Asia-Pacific Region: Issues, Concerns and Prospects. The first book in this Springer series was published in 2002, with the volume by Gerald Fry being the 42nd volume published to date.

Gerald Fry's substantial, 27-chapter book is the most comprehensive publication to date about education in Thailand. It successfully brings together international and local experts on Thai education. The substantial involvement of Thai education experts, which is usually lacking in international publications, assures that this book, while discussing broader issues in education and schooling such as quality, access, and equity, also touches on contextualized issues in education relevant to Thailand. From the history and development of Thai education to a discussion of issues surrounding the contemporary Thai education system, such as dimensions of inequality, quality reforms, policy directions, and alternative forms of education, the inclusive nature of this book makes it unparalleled in the existing literature. It also provides readers with noteworthy specific information such as a list of the many Thai education ministers since 2000, and notes on prominent education scholars and experts in Thailand.

The discussion commences with a history of the country's education system, this being contextualizing within a broader Thai setting by highlighting the important role of religion and education in the country. Different levels and sectors from primary to higher education, formal and nonformal, and technical-vocational training provide an across-the-board discussion while underlining issues relating to each of these areas. Other prominent issues in the education system dealing with broadly defined quality, leadership- and policy-related concerns, and the future direction of the Thai education system are also critically and carefully examined. While drawing attention to the distinctive features of the Thai education system, the book also locates these within a wider framework of educational issues similarly faced by others, such as teacher education, education testing and assessment, internationalization, research and development, and STEM. Given its coverage, this volume is the most wide-ranging reference available to anyone interested in education in Thailand.

Various topics examined in this Springer book series are wide ranging and varied in coverage, with an emphasis on cutting-edge developments, best practices, and education innovations for development. Topics examined include environmental education and education for sustainable development; the reform of primary, secondary, and teacher education; innovative approaches to education assessment; alternative education; most effective ways to achieve quality and highly relevant education for all; active aging through active learning; case studies of education and schooling systems in various countries in the region; cross-country and cross-cultural studies of education and schooling; and the sociology of teachers as an occupational group, to mention just a few. More information about this series is available at <http://www.springer.com/series/5888>.

All volumes in the book series aim to meet the interests and priorities of a diverse education audience including researchers, policy makers, and practitioners; tertiary students; teachers at all levels within education systems; and members of the public who are interested in better understanding cutting-edge developments in education and schooling in Asia-Pacific.

This book series has been devoted exclusively to examining various aspects of education and schooling in the Asia-Pacific region because this is a particularly challenging region which is renowned for its size, diversity, and complexity, whether it be geographical, socioeconomic, cultural, political, or developmental. Education and schooling in countries throughout the region impact on every aspect of people's lives, including employment, labor force considerations, education and training, cultural orientation, and attitudes and values. Asia and the Pacific is home to some 63% of the world's population of 7 billion. Countries with the largest populations (China, 1.4 billion; India, 1.3 billion) and the most rapidly growing megacities are to be found in the region, as are countries with relatively small populations (Bhutan, 755,000; the island of Niue, 1600).

Levels of economic and sociopolitical development vary widely, with some of the richest countries (such as Japan) and some of the poorest countries on Earth (such as Bangladesh). Asia contains the largest number of poor of any region in the world, the incidence of those living below the poverty line remaining as high as 40% in some countries in Asia. At the same time, many countries in Asia are experiencing a period of great economic growth and social development. However, inclusive growth remains elusive, as does growth that is sustainable and does not destroy the quality of the environment. The growing prominence of Asian economies and corporations, together with globalization and technological innovation, leads to long-term changes in trade, business, and labor markets, to the sociology of populations within (and between) countries. There is a rebalancing of power, centered on Asia and the Pacific region, with the Asian Development Bank in Manila declaring that the twenty-first century will be "the century of Asia-Pacific."

This book series makes an important and unique contribution to knowledge sharing about education and schooling in Asia-Pacific. Any readers of this or other volumes in the series who have an idea for writing (or editing) their own book on any aspect of education and/or schooling, which is relevant to the region, are enthusiastically encouraged to approach the series editors either directly or through Springer

to explore the possibility of publishing their own volume in the series, since we are always willing to assist perspective authors shape their manuscripts in ways that make them suitable for publication in this series.

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College of the North Atlantic-Qatar, Doha, Qatar

Rupert Maclean

College of Education
Zhejiang University
Hangzhou Shi, China
August, 2018

Lorraine Symaco

Photo



Photo of the “Academic Princess,” HRH Princess Maha Chakri Sirindhorn, with King Chulalongkorn the Great (orchestrated Thailand’s first major education reform) in the background

Map of Thailand



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from the Indian Council on Cultural Relations in 2016. On January 27, 2017, on the occasion of the 68th Republic Day of India, HRH received the Padma Bhushan, one of that nation's highest civilian awards for her distinguished service of a high order to the fields of literature and education. She is a true Renaissance woman dedicated to lifelong learning who is described by the National Research Council of Thailand as the "academic princess." Among her many book publications, was her elegant 2017 bilingual book titled *Poetry of Light [Kavyaprabha]*, which reflects her exceptional photographic talent and her intercultural, cosmopolitan outlook on life.

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Nantarat Charoenkul PhD, is an assistant professor in the Division of Educational Administration at the Faculty of Education, Chulalongkorn University. Dr. Nantarat Charoenkul received her bachelor of arts degree from Chulalongkorn University, Bangkok, Thailand; master of arts in European studies; and PhD in educational policy from the University of Newcastle upon Tyne, England. She started her scholarly journey as a research assistant to explore the private sector's role in an educational management and development project (Asian cases) under the E.G. West Research Centre, England. Dr. Nantarat has been working full-time at Chulalongkorn University since 2007. Her research focus has been on educational policy and management. Her research projects include A Study of the Administration of Schools Transferred to the Local Administration Organizations in the Northeast of Thailand (2007–2010); A Study of the Administrator's Roles in Schools and Community Relationship Building of Large Private Vocational Schools in Bangkok (2007–2008); The Development of an Administrative Model for a Performance-Based Budgeting System in Higher Education: A Case Study of Thailand (2008–2011); and A Study of Instructional Leadership in Asia: The Case of Thailand (in progress).

Panthep Larpkesorn graduated with a EdD (education management) from the University of Melbourne. He has a BA in political science from Thammasat University and an MA in public policy from American University. His previous works and publications focused on ICT policy in Thailand including One Tablet per Child and mobile learning. He is an educator (specialist level) at the Office of the Education Council, Ministry of Education.

Kirk R. Person received his PhD from the University of Texas, Arlington, and came to Thailand in 1988 as a volunteer English teacher. He currently works with SIL International, a global organization focused on minority language issues. He has served at Yonok, Payap, Mahidol, and Suan Sunandha Universities. He has conducted linguistic fieldwork in Thailand, Myanmar, and China (PRC), served as an

advisor to the Patani Malay-Thai Multilingual Education Project, and represented SIL International in the Education for All and Multilingual Education Working Groups (both based at UNESCO Bangkok). He has served on the Royal Institute of Thailand's National Language Policy Committee since 2006.

Phasina Tangchuang is a professor of adult/nonformal education, Faculty of Education, Chiang Mai University, Thailand. He completed his PhD in adult education from Florida State University in 1984. He has done several research projects funded by TRF, NRCT, CMU, and many private organizations. He is now a guest lecturer at Mahamakut Buddhist University. He also written many book chapters published in the USA, UK, Japan, and Thailand in volumes such as *Financing Higher Education in a Global Market* and *Productivity, Investment in Human Capital and the Challenge of Youth Employment*.

Porntip Kanjananiyot currently serves as a special advisor of SEAMEO Regional Center for Higher Education and Development, handling training on internationalization, exchanges, and cross-culture. Before then, she worked as executive director of Thailand-United States Educational Foundation from October 2003 to October 2014. Earlier on, she was director of the International Cooperation Strategy Bureau and Higher Education Standards Bureau, Commission on Higher Education (formerly known as Ministry of University Affairs). Throughout her career, she has worked in several ministries, including Education, the Prime Minister's Office (Office of the National Education Commission), and University Affairs. She has volunteered to be an assessor, since the inception of Thailand Quality Award in 2002 (modeled after the Malcolm Baldrige National Quality Award of the USA), and was an external assessor for higher education institutions of the Office of the National Education Standards and Quality Assessment for two 5-year cycles. In addition, she serves as member of committees relating to education, international cooperation, and language. She received her bachelor's degree with honors in education from Chulalongkorn University and holds two master's degrees from Columbia University (New York), one in international education development and one in educational administration.

Prapapat Niyom is president of Arsom Silp Institute of the Arts, Bangkok, Thailand. She received her bachelor's degree in architecture from Chulalongkorn University and an MA in architecture from the University of Pennsylvania. She was the founder of both Roong Aroon School (1997) and the Arsom Silp Institute of the Arts (2006). In 1995, she was the deputy dean of the Faculty of Architecture at Chulalongkorn University. From 1996 to 1998, she was the deputy governor of Bangkok. More recently, from 2014 to the present, she has been a member of the National Reform Council and an advisor to the minister of education. In the past, she has also served as president of the Thai Association of Alternative Schools. Her specialties are holistic education and a Buddhist approach to education and schooling and learning skills for innovation and the twenty-first century. She has published numerous articles in these areas.

Pruet Siribanpitak is a professor in education at the Faculty of Education at Chulalongkorn University. Currently, he is the chairman of the doctoral program in educational management. He served as the dean of the Faculty of Education for 8 years. He was the leader of the taskforce for setting up Thailand's Council of Deans of Education. His publications have focused on education for sustainable development, critical thinking, and strategic management for a small planet. He now serves as a specialist in the national committee for driving national reform in education. Recently, he has served as the chairman of the operation taskforce for teacher education.

Rattana Lao is a senior consultant at the Kenan Institute Asia. Previously she was head of the Thai Studies International Program, Pridi Banomyong International College, Thammasat University. She received a PhD in comparative and international education (political science) from Teachers College, Columbia University, and was a recipient of the prestigious Anandamahidol Scholarship. In 2015, Routledge published her book, *A Critical Study of Thailand's Higher Education Reforms: The Culture of Borrowing*. Prior to joining Thammasat, she was a visiting scholar at the University of London's Institute of Education and a postdoctoral fellow at the University of Hong Kong.

Rosarin Apahung teaches mathematics at Chumchon Bansang School in Seka District, Bueng Kan Province, in the remote northeast. She received undergraduate degrees in both elementary education and law from Sukhothai Thammathirat Open University (STOU) and an MA in curriculum and instruction from Udon Rajabhat University. She received a doctorate in strategies for the management of curricular design from Rajabhat Udon University in 2015. She has won many outstanding teacher awards. She is also academic head of Sang Nongthum School Cluster and head of the Academic Administration of Chumchon Bangsan School in Bueng Kan Province. She has served as a consultant to ISTP in STEM curriculum development. In the fall of 2016, she was an invited visiting scholar in the Department of Organizational Leadership, Policy, and Development, University of Minnesota. On January 21, 2017, she received a national award from the National Research Council of Thailand for being an outstanding researcher-teacher. Her current research focuses on strategies for using mathematics and statistics to promote ASEAN literacy and the cultural correlates of happiness education.

Samphan Phanphruk is director of the National Institute of Educational Testing Service. He received his BEd in mathematics-chemistry from Khon Kaen University, his MEd in education statistics from Chulalongkorn University, and his PhD in educational measurement and evaluation from Chulalongkorn University. He was past dean of the Faculty of Education at Khon Kaen University, past president of the Thailand Social Science Association, past president of the Thailand Education Deans' Council, and vice-president of the Buri Ram Rajabhat University Council. He has received many awards for his outstanding accomplishments in education, including a major royal decoration.

Sheldon Shaeffer was director of UNESCO's Asia and Pacific Regional Bureau for Education in Bangkok for over 7 years, retiring at the end of 2008. A citizen of Canada, he was educated in history (BA), anthropology (MA), and comparative international education (PhD) at Stanford University. Although he has worked in every developing region of the world, his professional focus for over 25 years has been on education systems and reforms in Southeast Asia, particularly in Indonesia, beginning as a university lecturer in Ambon and continuing through PhD research in East Java and evaluations, pilot projects on decentralization, capacity development programs, the development of policy briefs, and the analysis of teacher development and school management processes with the Ford Foundation, UNESCO, UNICEF, AusAID/DFAT, and the World Bank. Much of this work focused specifically on issues of education system reform, including pilot projects on decentralization; policy briefs in areas such as operational costs, multigrade teaching, and school-based management; and situation analyses and evaluations related to major reforms in teacher development and school management. His other current interests include early childhood development, language policy in education, inclusive education (both in regard to disabilities and more broadly defined), child-friendly education, and HIV and AIDS and education. Currently Dr. Shaeffer is an associate of the Institute for Reconstruction and Security through Education (The RISE Institute).

Sirilaksana Khoman is chair of Economic Sector Corruption Prevention at Thailand's National Anti-Corruption Commission (NACC). Before joining the NACC, she was dean of the Faculty of Economics, Thammasat University. She received her bachelor's and master's degrees in economics from the Australian National University, her PhD in economics from the University of Hawai'i, and a Certificate in International Trade Regulation from the Harvard Law School. She has taught at the Australian National University, the United Nations University in Tokyo, and the University of Oregon, USA, as a Fulbright scholar. She has done extensive work for several international organizations including the World Bank, UN ESCAP, WHO, UNCTAD, UNESCO, and the Asian Development Bank. Her areas of research are international trade, health economics, the economics of education, public policy, and currently the economics of corruption. She is currently serving her second term on the Global Agenda Council on Anti-Corruption and Transparency, World Economic Forum.

Somwung Pitiyanuwat received his BEd (Hons), MEd, and PhD in educational psychology (University of Minnesota, USA). He is currently professor emeritus of Chulalongkorn University and a Royal Fellow, appointed by the King of Thailand, of the Royal Council of Thailand, Academy of Moral and Political Sciences. He is the chairman of the Rajabhat Chaiyaphum University Council, a distinguished member of the Higher Education Commission, and a distinguished member of the Institute for Promotion of Teaching Science and Technology. Previously, he was the chairman of the Executive Board for the National Institute of Educational Testing Service, the chairman of Rajabhat Rajanagarindra University Council, the director

of the Office of National Education Standards and Quality Assessment, the dean of the Faculty of Education, and the vice-president for Research Affairs of Chulalongkorn University. Recently Dr. Somwung received a 2018 national educator award for his extraordinary contributions to Thai education. He is an acclaimed expert in quality assurance, educational assessment, citizenship education, and teacher education and development.

Sumalee Sungsi is a professor at the School of Educational Studies, Sukhothai Thammathirat Open University, Thailand. She received a BEd (Hons) from Srinakharinwirot University and MEd from Chulalongkorn University, Thailand, and finished her PhD from Monash University, Australia. She worked at the Department of Non-formal Education, Ministry of Education, as an adult educator for about 10 years before becoming a lecturer at the Non-formal Education Division, Sukhothai Thammathirat Open University. At the university, apart from her academic work, she had important administrative work such as assistant to the president and the director of the Office of Educational Services. At present, she is responsible for bachelor's degree, master's degree, and doctoral degree programs in nonformal and informal education and also a doctoral degree program in distance education. She has published a number of books, textbooks, and papers in the field of nonformal and informal education, lifelong education, and distance education. She also has conducted considerable research in the field of nonformal and informal education and lifelong education for various target groups such as young adults, those in the labor force, elderly people, women, and individuals in rural areas.

Khunying Sumonta Promboon received her BA in zoology and MS in genetics from the University of Wisconsin, Madison. She received her PhD in genetics from the University of Hawai'i. She is currently a member of the National Legislative Assembly; chair of the board of the Higher Education Commission, MOE; and a member of the boards of numerous universities such as King Mongkut's University of Technology Thonburi. She is also on the board of the Princess Maha Chakri Sirindhorn Foundation and that of the Institute for the Promotion of Teaching Science and Technology (IPST). From 1997 to 2003, she was president of Srinakharinwirot University. From 2004 to 2007, she was president of the Science Society of Thailand. Her research specialties are biology, biotechnology, science and technology education, and education for gifted children. In 2013 she was named Outstanding Thai Woman by the National Women's Council of Thailand.

Suwilai Premsrirat (PhD, Monash University) is the founding director of the Resource Center for Documentation, Revitalization and Maintenance of Endangered Languages and Cultures, Research Institute for Languages and Cultures of Asia (RILCA), Mahidol University, Thailand. She has researched ethnic minority languages in Thailand and its neighbors since 1975. Under her direction, Mahidol University staff have facilitated language revitalization and multilingual education programs in 23 ethnic languages. She is a recipient of the Mahidol Award for Outstanding Research (2001), the National Research Council of Thailand

Outstanding Researcher Award (2006), and the *Comite' International Permanent des Linguist* Award for Endangered Language Research (2008). Since 2006, she has cochaired the Royal Institute of Thailand's National Language Policy Committee. In 2016, RILCA was awarded the UNESCO King Sejong Literacy Prize for its program "Patani Malay-Thai Bi-/Multilingual Education Project (PMT-MLE)" which Dr. Suwilai directs.

Tan Pitianuwat completed a bachelor's degree of architecture in industrial design from King Mongkut's Institute of Technology Ladkrabang and a master of arts in industrial design from the Central Saint Martin's College of Art and Design of the University of the Arts London, England. He is currently a lecturer and head of Product Design Department School of Fine and Applied Arts, Bangkok University. Previously, he was a deputy dean for quality assurance of the Kasem Bundit University Faculty of Architecture and a product designer at Volksmobil Co, Ltd. (furniture export company). His research interests include sustainability in furniture design, furniture design in mass production, quality assurance in higher education, and alternative assessment using teaching and learning portfolios.

Wanwisa Suebnusorn is a lecturer (full-time, permanent) for the master's degree program in educational management and administration leadership of the Panyapiwat Institute of Management and a researcher at the Human Resource and Social Development Program of the Thailand Development Research Institute (TDRI), where she has served as a consultant for the Royal Thai Government and international organizations through various research and strategic planning projects. Her areas of specialization are education for employability and entrepreneurship, skills development, higher education, and vocational education. Wanwisa was a summa cum laude BEd graduate from the Faculty of Education, Chulalongkorn University, Bangkok, Thailand, and later obtained an MS degree in international and comparative education from Stockholm University, Sweden. She received her doctorate in educational policy and leadership (comparative education) in 2016 at Beijing Normal University, China.

Waraiporn Sangnapaboworn was previously the director of the International Education Development Center, Office of the Education Council, Ministry of Education, Thailand. She graduated and obtained a BEd in secondary education from Srinakharinwirot University, MS in education administration from the University of Wisconsin – Madison, and PhD in the fundamentals of education from the University of Tsukuba. Her study in Japan during the period of education reform movement was very useful for her work after returning to home and joining ONEC in driving a comprehensive education reform in Thailand. In the process of the reform plan implementation, she served as a project director of a pilot study on school-based management, which was a part of the ministry's effort to decentralize the power of education administration to local authorities, communities, and schools. In 2004–2005, she joined the Graduate School of International Development, Nagoya University, as a visiting research fellow and wrote a research monograph,

Education Reform in Thailand during 1999–2004: Success, Failure and Political Economy of the Implementation. At present, she serves as a senior researcher for the Suk-Kaew Kaewdang Foundation, an NPO working for peace and harmony in the deep south of Thailand.

Yongyuth Chalamwong is a research director at the Human Resources and Social Development Program, Thailand Development Research Institute (TDRI), Thailand. His research interests are on economic modeling, labor economics, international migration, regional development, natural resources management, economic demography, labor market, and policies. In 1989, he was a recipient of the award for professional excellence of the American Agricultural Economics Association in recognition of his superior achievement in agricultural economics as exemplified by his *Quality of Research Discovery* with other coauthors. He has been a project director of many research projects including the Economic Impact of Migration on Thailand; Managing International Labor Migration in ASEAN; Labor Mobility among Areas, Industries, and Occupations; Empowering Migrant Workers in Labor and Social Protection; Project on the Establishment of Manpower Demand and Supply to Support the Development of the Industrial Sector (Phase II); Research on the Management of Seasonal Migrant Worker (Case Studies); Project on the Establishment of Manpower Demand and Supply to Support Industrial Development Plan (Phases 1–3); Awareness Raising Workshop on “Migrant Welfare and Obligation” for Government Officials; Employers, Migrants, and Host Communities in Thailand, Study of an Effective Demand for Alien Workers from Three Neighboring Countries; Project on a Policy Study on the Management of Undocumented Migrant Workers in Thailand; Economic Forecast for Thailand, B.E. 2545–2559; and a Sustainable Solution to the Displaced People Situation Along the Thai-Myanmar Border. During the past decade, he has been involved with several projects on regional development in Thailand. In addition, he was invited to present papers related to migration and labor market issues as well as to be a keynote speaker for both internal and international conferences. Also, he has served as an advisor for government sectors such as the Ministry of Labor and the Office of the Vocational Education Commission, Ministry of Education.

Yongyuth Yuthavong is a senior consultant to the National Center for Genetic Engineering and Biotechnology (BIOTEC), National Science and Technology Development Agency (NSTDA). Professor Dr. Yongyuth Yuthavong is an outstanding Thai scientist with a particular interest in the broad issues of public policies, especially those concerning the application of science and technology for development – as well as human development in general. After completing his schooling in Thailand, Dr. Yongyuth was awarded a Thai Government Scholarship to study in the UK, graduating from the University of London in 1966, with a first class honors degree in chemistry. He followed this by obtaining a doctoral degree in organic chemistry from the University of Oxford in 1969. Dr. Yongyuth then spent a long career at Mahidol University, conducting research and teaching. He was appointed professor of biochemistry in 1983 and was honored with the “Outstanding Scientist

of Thailand” Award in 1984, from the Foundation for the Promotion of Science and Technology. During the same period, he was chosen as the director of the National Centre for Genetic Engineering and Biotechnology (BIOTECH) from 1985 to 1989. Dr. Yongyuth became the first president of Thailand’s National Science and Technology Development Agency (NSTDA) from 1992 to 1998. In 2004 he received the Nikkei Asia Prize for Science, Technology and Innovation from the *Nihon Keizai Shimbun*, Japan, for his outstanding work on antimalarial drug targets, as well as the prestigious “Person of the Year” Award from Thailand’s National Identity Board. Dr. Yongyuth served as the minister of science and technology from 2006 to 2008, when *The Nation* newspaper named him one of “the 35 most influential Thais over the past 35 years.” From 2014 to 2015, he served as Thailand’s deputy prime minister. In May 2016, Dr. Yongyuth was named by *Asian Scientist* as one of the top 100 scientists in Asia. Only two Thais were so honored. Among his many publications are *Science and Technology in Thailand: Lessons from a Developing Economy*, published by NSTDA and UNESCO.

Abbreviations

ABAC	Assumption Business Administration College
ABE	Area-Based Education
ADB	Asian Development Bank
AEC	ASEAN Economic Community
AIMS	ASEAN International Mobility for Students
AIT	Asian Institute of Technology
APEC	Asia-Pacific Economic Cooperation forum
ASAIHL	Association of Southeast Asian Institutions of Higher Learning
ASEA-UNINET	ASEAN European Academic University Network
ASEAN	Association of Southeast Asian Nations
ASEM	Asia–Europe Meeting
ASEMME	Asia–Europe Meeting of Ministers for Education
ASHE	The Association for the Study of Higher Education
AUN	ASEAN University Network
BICS	Basic Interpersonal Communications Skills
BICS	Bureau of International Cooperation Strategy, Office of Higher Education Commission (OHEC)
BISP	British International School, Phuket
BMA	Bangkok Metropolitan Administration
B-NET	Buddhist National Educational Test
BPS	Bangkok Patana School
BTS	Bangkok Skytrain
CALP	Cognitive Academic Language Proficiency
CAS	Center for ASEAN Studies
CBLM	Control-Based Learning Model
CBT	Cognitive Behavioral Therapy
CDC	Constitution Drafting Committee
CELS	Centre for Education and Labour Studies, CMU
CERN	European Organization for Nuclear Research
CET	Center for Educational Technology

CLC	Community Learning Center
CLMV	Cambodia, Laos, Myanmar, Vietnam
CMA	Capital Market Academy
CMU	Chiang Mai University
CP	Charoen Pokphand business conglomerate
CP All Pcl.	7-Eleven Thailand
CSR	Corporate Social Responsibility
CUAS	Central University Admissions System
CUPT	Council of University Presidents of Thailand
CUSRI	Chulalongkorn University Social Science Research Institute
DAISY	Digital Accessible Information System
DEPISA	Developing Educational Professionals in Southeast Asia
DESY	The Deutsches Elektronen-Synchrotron (English <i>German</i> Electron Synchrotron)
DLF	Distance Learning Foundation
DNFE	Department of Non-Formal Education (past)
DNIE	Department of the Non-formal and Informal Education
DOLA	Department of Local Administration
DPST	Development of Sciences and Mathematics Talented Project
DTA	Department of Trade Negotiations
DTEC	Department of Technical and Economic Cooperation
EAON	Educating All of One Nation
ECCD	Early Childhood Care and Development
ECTS	European Credit Transfer System
EdIF	Education Internationalization Forum
EdPEX	Educational Criteria for Performance Excellence
EEC	Eastern Economic Corridor project
EQA	External Quality Assurance
EQI	Educational Quality Index
ESA	Educational Service Area
ESAO	Education Service Area Offices
ESCS	Economic, Social, and Cultural Status
FAL	Foundation for Applied Linguistics
FIF	Fulbright Internationalization Forum
FIT	Future Innovative Thailand
FLA	Foundation for Applied Linguistics
GAT	General Aptitude Test
GER	Gross Enrollment Ratio
GERD	Gross Domestic Expenditures on Research and Development
GIS	Geographic Information System
GMS	Greater Mekong Subregion
GTDEE	German-Thai Dual Excellence Education Program
HRM	Human Resource Management
IaH	Internationalization at Home
IAU	International Association of Universities

IBC	International Buddhist College
ICER	Independent Committee for Education Reform
ICILS	International Computer and Information Literacy Study
ICT	Information and Communications Technology
ICU	Intensive Care Unit schools
IDEA	Institution for Development of Education Administration
IDRC	International Development Research Centre
IEA	International Association for the Evaluation of Educational Achievement
IFE	Informal Education
IGIL	Institute for Gifted and Innovative Learning
IIDEA	The International Institute for Development of Educational Administration
IIEP	International Institute for Educational Planning (Paris)
IMD	International Institute for Management Development
INEB	International Network of Engaged Buddhists
I-NET	Islamic National Educational Test
IPST	Institute for the Promotion of Teaching Science and Technology
IQA	Internal Quality Assurance
IRASEC	Institut de Recherche sur l'Asie du Sud Est Contemporaine
IRO	International Relations Office
ISAT	International Schools Association of Thailand
ISB	International School Bangkok
ISCED	International Standard Classification of Education
ITD	Institute for Trade and Development
JEAI	Journal of East Asian Economic Integration
KEI	Knowledge Economy Index
KMUTT	King Mongkut's University of Technology Thonburi
KPI	King Prajadhipok Institute
KVIS	Kamnoetvidya Science Academy
LAO	Local Administrative Organization
LLEN	Local Learning Enrichment Network
LPMP	Lampaimat Pattana School (Buri Ram)
LSH	Little Scientists' House
MICE	Meetings, Incentives, Conferences, Exhibitions
MICS	Multiple Indicator Cluster Survey
MICS4	Multiple Indicator Cluster Surveys-Round 4
MOE	Ministry of Education
MOI	Ministry of the Interior
MOST	Ministry of Science and Technology
MoST	Ministry of Science and Technology
MRAs	Mutual Recognition Arrangements
MRT	Bangkok subway system
MTB-MLE	Mother Tongue-Based Multilingual Education

MUA	Ministry of University Affairs
MUIC	Mahidol University International College
MWIT	Mahidol Wittayanusorn School
NASA	National Aeronautics and Space Administration
NCPD	National Council for Peace and Development
NCPO	National Council for Peace and Order
NCSL	National College for School Leadership
NCWA	National Commission on Women's Affairs
NEA	National Education Act
NEB	National Economic Board
NEC	National Educational Council
NEDB	National Economic Development Board, became NESDB in 1972
NEIS	National Education Information System
NER	Net Enrollment Ratio
NERI	National Education Resource Institute (proposed)
NESDB	National Economic and Social Development Board
NFE	Non-Formal Education
NIDA	National Institute of Development Administration
NIDTEP	National Institute for the Development of Teachers, Faculty Staff and Educational Personnel
NIETS	National Institute of Educational Testing Service
NIPT	Network of Indigenous Peoples in Thailand
NIST	New International School of Thailand
NLP	National Language Policy
NLPC	Committee to Draft the National Language Policy
N-NET	National Non-formal Education Test
NOB	National Office of Buddhism
NQF	National Qualifications Framework
NRC	National Reconciliation Commission
NRC	National Reform Council
NRCT	National Research Council of Thailand
NSM	National Science Museum
NSTDA	National Science and Technology Development Agency
NSTIPO	National Science, Technology and Innovation Policy Office
NUC	National University Council
NUS	National University of Singapore
OBEC	Office of the Basic Education Commission
ODOS	One District, One Scholarship
OEC	Office of the Education Council
OER	Office of Education Reform, 2000–2002
OERC	Office of Education, Religion, and Culture
OHEC	Office of Higher Education Commission
ONEC	Office of the National Education Commission

ONESQA	Office of National Education Standards and Quality Assessment
O-NET	Ordinary National Educational Test
ONFE	Office of the Non-Formal and Informal Education (current)
ONFEC	Office of the Non-Formal Education Commission (current)
ONIE	Office of the Non-formal and Informal Education
ONPEC	Office of the National Primary Education Commission
ONRC	Office of the National Research Council
OPDC	Office of the Public Sector Development Commission
OPEC	Office of the Private Education Commission
OPP	Office of Welfare Promotion, Protection and Empowerment of Vulnerable Groups
OPS	Office of the Permanent Secretary
OTPC	One Tablet Per Child
OTC	Office of the Teachers' Commission
OTEPC	Office of the Teacher Civil Service and Educational Personnel Commission
OVEC	Office of the Vocational Education Commission
PAD	People's Alliance for Democracy
PAT	Professional and Academic Aptitude Test
PBL	Project-based learning
PCC	Phuket Community College
PDA	Population and Community Development Association
PDSF	Thailand-EU Policy Dialogues Support Facility (PDSF)
PEC	Provincial Education Committee
PIM	Panyapiwat Institute of Management
PISA	Programme for International Student Assessment
PMT-MLF	Patani Malay-Thai Bi-/Multilingual Education Project
PPP	Purchasing Power Parity
PPP	People's Power Party
PSED	Public Service Executive Development Program
PTT	Petroleum Authority of Thailand
QA	Quality Assurance
QLF	Quality Learning Foundation
QSCCS	Questioning, Searching, Constructing, Communicating, Serving
RAIST	Rayong Advanced Institute of Science and Technology
RBL	Research-Based Learning
RDS	Research and Development Statistics
RILCA	Research Institute for Languages and Cultures of Asia (Mahidol University)
RIS	Ruamrudee International School
RRI	Research and Researchers for Industry
RSA	Rayong Science Academy
RUN	Research University Network

SCiUS	Science Classrooms in University-Affiliated Schools
SEAMEO	Southeast Asian Ministers of Education Organization
SEAMEO-RIHED	SEAMEO Regional Centre for Higher Education and Development
SEAMEO-TVET	SEAMEO Technical and Vocational Education Training
SICED	Sirindhorn Institute for Continuing Education and Development
SID	Siam Innovation District
SIL	Summer Institute of Linguistics (former name), now SIL International
SLF	Student Loan Fund
SME	Small- and medium-sized enterprises
SOTUS	Seniority, Order, Tradition, Unity, and Spirit
STEM	Science, Technology, Engineering, and Mathematics
STI	National Science and Technology and Innovation Policy Office
STOU	Sukhothai Thammathirat Open University
SWU	Srinakharinwirot University
TAO	Tambon Administrative Organization
TCAS	Thai University Central Admission System
TCT	Teachers' Council of Thailand
TDRI	Thailand Development Research Institute
TEPCoT	Top Executive Program in Commerce and Trade
TERO	Teacher Education Reform Office
TFF	Thailand Future Foundation
THB	Thai Baht
TICA	Thailand International Cooperation Agency
TICAL	Thailand Income Contingent and Allowance Loan
TILPAD	Thailand Institute for the Literacy Promotion and Development
TIMSS	Trends in International Mathematics and Science Study
TIPP	Thai International Postgraduate Program
TLA	Thailand Library Association
TPQI	Thailand Professional Qualification Institute
TQA	Thailand Quality Award
TQF	Thailand Qualifications Framework
TRI	Tribal Research Institute
TRIS	Thai Rating and Information Services
TRT	Thai Rak Thai (political party)
TSDF	Thailand Sustainable Development Foundation
TUF	Thai Union Frozen Products
TUFEC	Thailand UNESCO Foundation Education Center
TURTEP	Thai-UNESCO Rural Teacher Education Project
TUSEF	Thailand-United States Educational Foundation
TVQ	Thailand Vocational Qualifications
UBI	University Bus Incubator

UCTS	UMAP Credit Transfer Scheme
UDD	United Front for Democracy Against Dictatorship
UMAP	University Mobility in Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children’s Education Fund
U-NET	University National Educational Test
UniNet	The Thailand Education and Research Network
VEC	Vocational Educational Commission
VET	Vocational Education and Training
VISTEC	Vidyasirimedhi Institute of Science and Technology (formerly RAIST)
V-NET	Vocational National Educational Test
WBU	World Buddhist University
WIL	Work-Integrated Learning
WIPO	World Intellectual Property Organization
YRU	Yala Rajabhat University

Glossaries

Glossary of Thai Language Terms 1: Concepts and Terms

Thai Term

Chariyasueksa (จริยศึกษา)

Chup dua (ชุบตัว)

Hathasueksa (หัตถศึกษา)

Isan (อีสาน)

Kalayanamit (กัลยาณมิตร)

Kamnan (กำนัน)

Kanpramuenbaebkalaynamit (การประเมินแบบกัลยาณมิตร)

Kansueksa (การศึกษา)

Kansueksapiset (การศึกษาพิเศษ)

Khana Kammakan Sathansueksa (คณะกรรมการสถานศึกษา)

Khit-pen (คิดเป็น)

Khurusapha (คุรุสภา)

Khon-klap khuen-thin (คนกล้าขึ้นถิ่น)

Khru bannok (ครูบ้านนอก)

Khru mai krop chan (ครูไม่ครบชั้น)

Khropkhrua waeng klang (ครอบครัวแห้วกลาง)

English Translation

Moral education

Acquire prestige through training or study abroad

Practical learning involving developing skills with one's hands, e.g., carpentry

Northeast Thailand

True friend

Head of a subdistrict

Amicable assessment
Education

Special education

Local School Board

To be able to think

Teachers' Council
of Thailand

The return of the brave ones to resettle as farmers

Rural school teacher

Not enough teachers to cover every class

Families where children are taken care of by their grandparents (because their parents move away to work)

Khuruthayat (คุรุทายาท)	Teachers' successors
Lakhon ling (ละครลิง)	Monkey play
Long khaek (ลงแขก)	Helping each other without financial compensation
Mahawithayalai mi chue (มหาวิทยาลัยมีชื่อ)	University with a name (prestige university)
Naklaeng (นักร้อง)	Village gangster
Pae chia (แป๊ะเจี๊ยะ)	Tea money, "donations" to facilitate admission to prestigious schools
Phalasueksa (พลศึกษา)	Physical education
Phasa mae (ภาษามแม่)	Mother tongue
Phuthisueksa (พุทธศึกษา)	Theoretical knowledge
Ratthaniyom (รัฐธรรมนูญ)	Cultural mandates (12 of them) policy of Prime Minister Pibul
Rian pen chao khon nai khon (เรียนเป็นเจ้าของคน)	Learn so as to be the boss of others
Kansueksa thi ban (การศึกษาที่บ้าน)	Homeschooling
Rongrian farang (โรงเรียนฝรั่ง)	Western school (often originally a missionary school)
Rongrian kuat wicha (โรงเรียนกวัดวิชา)	Coaching, cram schools
Rongrian mi chue (โรงเรียนมีชื่อ)	School with a name (prestige school)
Rongrian prachaban (โรงเรียนประชาบาล)	Rural primary school
Rongrian cayai ogat (โรงเรียนขยายโอกาส)	Extended primary school
Rongrian khunatham (โรงเรียนคุณธรรม)	Schools that emphasize moral and character education
Rongrian pracham changwat (โรงเรียนประจำจังหวัด)	The major school in a province
Rongrian sathit (โรงเรียนสาธิต)	Demonstration school
Rongrian wat (โรงเรียนวัด)	Temple school
Rongrian withiput (โรงเรียนวิถีพุทธ)	Buddhist-oriented school
Samansueksa (สามัญศึกษา)	Formal schooling
Sataban achiwasueksa (สถาบันอาชีวศึกษา)	Vocational education institutes
Settakit phophiang (เศรษฐกิจพอเพียง)	Sufficiency economy being promoted by the late HM King Bhumibol
Sobentran (สอบเอ็นทรานซ์)	Entrance examination
Sueksa (ศึกษา)	To study (to want to be capable)

Thansamai (หันสมัย)	Being modern
Tom yam kung crisis (วิกฤตต้มยำกุ้ง)	Literally, “lemongrass shrimp soup crisis,” i.e., the Asian economic crisis of 1997–1998
Traisikkha (ไตรสิกขา)	Threefold moral training
Triamudomsueksa (เตรียมอุดมศึกษา)	College preparatory school
Wisamansueksa (วิสามัญศึกษา)	Special education

Glossary of Thai Language Terms 2: Acronyms

Ko Kho So	(กคศ. = คณะกรรมการบริหารงานบุคคลของข้าราชการครูและบุคลากรทางการศึกษา) School board
Ko Kho So	(ก.ค.ศ. = สำนักงานคณะกรรมการข้าราชการครูและบุคลากรทางการศึกษา) The Teachers and Educational Personnel Council (OTEPC)
Ko Pho Ro	(กพร. = สำนักงานคณะกรรมการพัฒนาระบบราชการ) Office of the Committee for the Development of the Civil Service System
Ko O So	(กอส. = สำนักงานคณะกรรมการการอาชีวศึกษา) Commission on Vocational Education
Ko So Cho	(กศจ. = คณะกรรมการการศึกษาธิการจังหวัด) Provincial Education Committee
Ko So No	(กสน. = สำนักงานส่งเสริมการศึกษานอกระบบและการศึกษาตามอัธยาศัย) Office of the Non-formal and Informal Education (OFIE)
O Ko Kho So	(อ.ก.ค.ศ. = คณะอนุกรรมการข้าราชการครูและบุคลากรทางการศึกษาประจำเขตพื้นที่การศึกษา) Sub-Committee on Educational Civil Service Teachers and Personnel (TCEPC)
Pho Ro Bo PIM	(พรบ. = พระราชบัญญัติการศึกษาแห่งชาติ) National Education Act (1999) (PIM= สถาบันการจัดการปัญญาภิวัฒน์) Panyapiwat Institute of Technology
So Ko O	(สกอ. = สำนักงานคณะกรรมการการอุดมศึกษา) Office of the Higher Education (OHEC)
So O So	(สอศ.= สำนักงานคณะกรรมการการอาชีวศึกษา) Office of the Vocational Education Commission (VEC)

So Cho	(สช. = สำนักงานคณะกรรมการส่งเสริมการศึกษาเอกชน) Office of the Private Education Commission (OPEC)
So Kho Bo So	(สคส. = สถาบันพัฒนาครู คณาจารย์ และบุคลากรทางการศึกษา) Institute for the Development of Teachers, Faculty, Staffs and Educational Personnels (NIDTEP)
So Ko So	(สคส. = สำนักงานเลขาธิการสภาการศึกษา) Office of the Education Council (OEC)
So Mo So	(สมส. = สำนักงานรับรองมาตรฐานและประเมินคุณภาพการศึกษา (องค์การมหาชน)) Office of National Education Standards and Quality Assurance (ONESQA) (Public organization)
So No	(ศน. = ศึกษาธิการ) Educational supervisor
So No Ko	(สนก. = สำนักพัฒนานวัตกรรมจัดการศึกษา) Bureau of Educational Innovation Development
So O So	(สอศ. = สำนักงานคณะกรรมการการอาชีวศึกษา) Office of the Vocational Education Commission (OVEC)
So Pho Cho	(สปช. = สำนักงานคณะกรรมการการประถมศึกษาแห่งชาติ) Office of the Primary Education Commission
So Pho Mo	(สพม. = สำนักงานเขตพื้นที่การศึกษามัธยมศึกษา) Office of the Secondary School Education Service Area
So Pho Po	(สพป. = สำนักงานเขตพื้นที่การศึกษาประถมศึกษา) Office of the Primary School Education Service Area
So Pho Ro	(สพร. = สถาบันพัฒนานวัตกรรมการเรียนรู้) Institute for the Development of Innovative Learning
So Po So	(สปศ. = สำนักงานการปฏิรูปการศึกษา) Office of Education Reform (OER), 2000–2002
So Pho Tho	(สพท. = สำนักงานเขตพื้นที่การศึกษา) Office of the Education Service Area
So Pho Tho	(สพฐ. = สำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน) Office of the Basic Education Commission (OBEC)
So So Cho	(สศจ. = ศึกษาธิการจังหวัด) Provincial Education Officer
So So Kho	(สสค. = สำนักงานส่งเสริมสังคมแห่งการเรียนรู้และคุณภาพเยาวชน) The Office for Promoting Learning Society and Youth Quality
So Tho	(ศธ. = กระทรวงศึกษาธิการ) Ministry of Education (MOE)
So Tho Cho	(ศจง. = ศึกษาธิการจังหวัด) Provincial Education Officer
So Tho Pho	(ศทก. = ศึกษาธิการภาค) Regional Education Officer
So Tho So	(สทศ. = สถาบันทดสอบทางการศึกษาแห่งชาติ) National Institute for Educational Testing Service (Public organization)
So So Ko	(สสค. = สำนักงานส่งเสริมสังคมแห่งการเรียนรู้และคุณภาพเยาวชน) The Office for Promoting Learning Society and Youth Life Quality

So So Wo Tho	(สสวท. = สถาบันส่งเสริมการสอนวิทยาศาสตร์และเทคโนโลยี) The Institute for the Promotion of Teaching Science and Technology (IPST)
So Wo Tho Cho	(สวทช. = สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ) National Science and Technology Development Agency (NSTDA)
Tho Po O	(ทปอ. = ที่ประชุมอธิการบดีแห่งประเทศไทย) The Council of University Presidents of Thailand (CUPT)
Wo Cho	(วช. = สำนักงานคณะกรรมการวิจัยแห่งชาติ) National Research Council of Thailand (NRCT)
Wo Ko	(วค. = วิทยาลัยครู) (Teachers colleges)
Wo Po O	(วปอ. = วิทยาลัยป้องกันราชอาณาจักร) National Defense Academy

Chronology

- 1283 King Ram Khamhaeng the Great introduced the Thai alphabet.
- 1835 Dr. Dan Beach Bradley arrived in Thailand.
- 1848 The Lang Wang School palace school was established by Presbyterian missionaries.
- 1852 Bangkok Christian College was established.
- 1868 The 1868 Education Plan was issued.
- 1871 The first formal school to train civil servants was built, the beginning of Thai formal education.
- 1879 The Suan Anand School was established in the old Nantha-Utthayan Palace.
- 1880 King Chulalongkorn the Great established Sunanthalai School, a girls' school.
- 1884 The first formal school for general public was established on the grounds of Maharanbaram Temple.
- 1887 The Department of Education was established by King Chulalongkorn the Great.
- 1887 Mahachulalongkornrajavidyalaya was established (later to become Thailand's leading Buddhist university).
- 1887 The Chulachomklao Royal Military Academy was established.
- 1888 The Thailand Theological Seminary was founded, later to become part of Payap University.
- 1888 Siriraj Hospital was established which included the School of Medical Practitioners, later to become Mahidol University.
- 1891 The Department of Science Service was established.
- 1892 The Ministry of Thammakarn (for education) was established.
- 1892 The first teacher training school (rongrian fuekhat achan) was established.
- 1893 Mahamakut Buddhist University was established.
- 1895 The National Library was founded.
- 1897 The Ministry of Justice Law School was established.
- 1897 King Chulalongkorn the Great embarked on his first trip to Europe.

- 1898 The first National Education Plan was released (also known as the First National Scheme for Education).
- 1899 King Chulalongkorn the Great promulgated the “Decree on the Organization of Provincial Education.”
- 1899 The School of Civil Service Training was established (later to become the Faculty of Political Science at Chulalongkorn University).
- 1901 The Police Cadet Academy was established.
- 1902 The National Education Plan was issued.
- 1903 A second teacher training school was opened.
- 1904 The Royal Siam Society was established.
- 1905 The National Library was established.
- 1907 King Chulalongkorn the Great embarked on his second trip to Europe.
- 1910 The Commercial Schools at Wat Maha Phruttharam and Wat Ratchaburana were established as the first vocational schools in the country.
- 1911 Birth of the national scouting movement.
- 1913 The first teacher training school for women was founded at Benjamarachalai School.
- 1917 Chulalongkorn University, Thailand’s first, was established by King Rama VI.
- 1918 Training school for primary-level teachers in farming was established (later to become Kasetsart College and now Kasetsart University).
- 1919 The Ministry of Thammakarn became the Ministry of Education responsible for all types of schools.
- 1921 Compulsory Primary Education Act was promulgated (6 years of primary school).
- 1923 The McCormick Hospital School of Nursing was established to later become part of Payap University.
- 1926 The Royal Society of Thailand was established.
- 1932 The first formal comprehensive education plan introduced after change to a constitutional monarchy.
- 1933 The Royal Society of Thailand was renamed the Royal Institute of Thailand.
- 1934 Thammasat University established by Dr. Pridi Banomyong originally known as the University of Moral and Political Sciences.
- 1934 The first BA in teacher education offered at Chulalongkorn University.
- 1934 Suan Dusit Teacher’s College was established.
- 1936 Educational system refined with 4 years (instead of 6) becoming the norm for primary education.
- 1937 The first National Census was conducted.

- 1939 Bangkok School for the Blind was established.
- 1940 The Adult Education Division was established as part of the MOE.
- 1941 The Department of Vocational Education was established.
- 1941 Restructuring of Government Agencies Act B.E. 2484 (1941) became law.
- 1943 The University of Medical Sciences was established, later to become Mahidol University.
- 1943 Kasetsart University (agriculturally oriented) was established.
- 1943 Silpakorn University (of fine arts) was established by the Italian-born art professor Corrado Feroci, who took the Thai name Silpa Bhirasri.
- 1943 The first Department of Teacher Education was established at Chulalongkorn University.
- 1943 Passing of Prince Damrong Rajanubhab.
- 1945 The Teachers Act was passed, establishing the Council of Teachers (Khurusapha).
- 1946 The Faculty of Political Science was established at Chulalongkorn University.
- 1947 The Faculty of Medicine was established at Chulalongkorn University.
- 1948 The Science Society of Thailand was established.
- 1949 Advanced School for Teacher Training (Prasarnmit) was initiated.
- 1949 The Department of Political Science at Thammasat University was established.
- 1951 International School of Bangkok (ISB) was established.
- 1951 The National Education Plan was issued.
- 1952 The University of Moral and Political Sciences became Thammasat University.
- 1953 College of Education (Prasarnmit) was established.
- 1954 TUFEC established in cooperation with UNESCO for providing training related to adult education.
- 1955 The King's second daughter was born (now HRH Princess Maha Chakri Sirindhorn and known as the "Education Princess").
- 1955 The National Defense College was established by the military.
- 1955 Chitralada School established as a private school in the Dusit Palace.
- 1955 The International Institute for Child Study was established at Prasarnmitr College.
- 1955 National Children's Day launched.
- 1956 Association of Southeast Asian Institution of Higher Learning (ASAIHL) was founded.
- 1956 National University Council (NUC) was established.
- 1957 Ruamrudee International School (RIS) and Bangkok Patana School (BPS) were established.

- 1959 The National Education Council (NEC) was established by Prime Minister Sarit Thanarat.
- 1959 The National Research Council of Thailand (NRCT) was established.
- 1959 The SEATO Graduate School of Engineering was approved. This eventually became the Asian Institute of Technology (AIT).
- 1960 National Education Council (NEC) was established.
- 1961 The National Education Plan (1961–1966).
- 1961 The first National Economic Development Plan (1961–1966) was released.
- 1964 Chiang Mai University (CMU) was founded as the major university in Northern Thailand.
- 1964 Khon Kaen University (KKU) was founded as the major university in Northeast Thailand.
- 1967 Prince of Songkla University (PSU) was founded as the major university in Southern Thailand.
- 1967 The SEATO Graduate School of Engineering became the Asian Institute of Technology independent of SEATO.
- 1967 The National Defense College was opened up to executives of state enterprises.
- 1969 The University of Medical Sciences became Mahidol University named after King Rama VIII, the father of Thai medicine and public health.
- 1969 Royal Proclamation of the Private College Act.
- 1969 The Assumption Commercial College (ACC) was established, also known as the Assumption School of Business.
- 1971 Ramkhamhaeng Open University was established.
- 1972 The first international program, ABAC, bachelor of business administration.
- 1972 The NEC became the Office of the National Education Commission (ONEC).
- 1972 The Ministry of University Affairs was created.
- 1972 The Office of the Private Education was established.
- 1972 The Institute for the Promotion of Teaching Science and Technology (IPST) was established.
- 1972 M.L. Manich Jumsai started the National Book Fair.
- 1972 The seventh National Higher Education Development Plan (1992–1996) was developed.
- 1974 The Committee for Paving the Foundation for Education Reform was appointed.
- 1974 Srinakharinwirot University (SWU) (formerly Prasarnmit Teaching Training College) was established.
- 1974 Payap College in Chiang Mai was established as the first private college outside Bangkok.

- 1975 The Education Reform Committee was appointed.
- 1975 Teacher Training College Act; teacher training schools became teacher's colleges.
- 1975 ACC became the Assumption Business Administration College (ABAC).
- 1975 HM the King initiates Phra Dabot School, an informal vocational school.
- 1977 Thailand's second major education reform was developed.
- 1977 The National Education Plan was approved.
- 1977 Thailand's educational structure was changed from 4-3-3-2 to 6-3-3.
- 1977 The Phuket Community College project was launched.
- 1978 National Commission Education Act, establishing the Office of the National Education Commission (ONEC) to replace the National Education Council (NEC).
- 1978 The National Curriculum was announced.
- 1978 The Thai Encyclopedia for Children and Youth was published.
- 1978 The Duang Prateep Foundation was established.
- 1979 The Adult Education Division was upgraded to the Department of Non-formal Education.
- 1979 The Ministry of Science, Technology and Energy was established.
- 1979 Sukhothai Open University (STOU) was established as Thailand's first open distance university.
- 1979 The first Long-Term Plan for Child and Youth Development was announced.
- 1980 National Primary Education Act. Rural elementary schools were transferred from the Ministry of Interior to the Ministry of Education.
- 1980 The National Curriculum was announced.
- 1982 Thailand's 36 teacher training colleges were transformed into Rajabhat Institutes.
- 1982 National Science Day (August 18) was established to honor King Rama IV.
- 1983–1987 A major adult literacy campaign was carried out under the leadership of Dr. Kasama Varavan.
- 1986 Phuket Community College was formally established as Thailand's first community college, part of PSU.
- 1987 The National Education Plan with an emphasis on lifelong learning was developed.
- 1988 The National Security Academy for Government and Private Sector was established.
- 1988 The Nation Multimedia Group established the "Yonok College" in Lampang Province.
- 1990 At international conference at Jomtien, Thailand, Education for All was announced.

- 1990 The first autonomous university, Suranaree University of Technology (SUT), was established in Korat, in the northeast.
- 1990 The first 15-Year Long-Range Plan for Higher Education (1990–2004) was launched by the Ministry of University Affairs (MUA).
- 1990 Thai announced international schools law.
- 1990 ABAC Mahidol Wittayanusorn School became Assumption University (associated with the Brothers of Mahidol Wittayanusorn School St. Gabriel).
- 1991 Mahidol Wittayanusorn School was established as Thailand's first exclusive science high school.
- 1991 National Seminar of the International Thai Higher Education was held by the Ministry of University Affairs.
- 1991 The National Science and Technology Development Agency (NSTDA) was established.
- 1992 The 1992 National Education Plan was promulgated.
- 1992 The Thailand Research Fund (TRF) was established.
- 1993 The Regional Center for Higher Education and Development (RIHED) was relocated to the Ministry of University Affairs.
- 1993 SUT became fully operational.
- 1994 The School Botanical Gardens Project was started by HRH Princess Maha Chakri Sirindhorn.
- 1994 The International Schools Association of Thailand (ISAT) was established.
- 1994 The College of Music was established at Mahidol University.
- 1995 Teacher's colleges became Rajabhat Institutes.
- 1996 The Centre for Teaching and Learning Development was established to initiate and diffuse educational innovations.
- 1996 As part of the Golden Jubilee Celebration, the Kanchanapisek Web site was created.
- 1996 University Mobility in Asia and the Pacific (UMAP) was established.
- 1996 The Office of the Judiciary launched a Senior Judicial Officer's Course.
- 1996 A new Faculty of Psychology was established at Chulalongkorn University.
- 1997 New constitution (progressive) was promulgated mandating free basic education, major education reform, and decentralization.
- 1997 Mahamakut Buddhist University was chartered as Mahachulalongkornrajavidyalaya University.
- 1997 Roong Aroon School was established.
- 1998 The King Prajadhipok Institute (KPI) was established.
- 1999 The National Education Act was passed as the basis for major education reform.

- 1999 The Council of Engineers of Thailand (COE) was established.
- 2000 The Office of Educational Reform was established.
- 2000 The Office for National Education Standards and Quality Assessment (ONESQA) was established.
- 2000 Thailand's first science school, Mahidol Wittayanusorn, became autonomous in management.
- 2000 The cabinet passed a resolution requiring that Thai style numbers be used in all official documents.
- 2001 The Basic Education Core Curriculum was developed.
- 2001 The International Institute for Trade and Development was established.
- 2001 BMA establishes the Bangkok Children's Discovery Museum.
- 2002 The first ten community colleges were established in ten provinces.
- 2002 The Ministry of Education Act, restructuring the MOE.
- 2002 The Bureaucratic Reform Act.
- 2002 The National Education Act (NEA) was amended.
- 2002 Ten community colleges were established in each of ten provinces.
- 2003 The Ministry of Education Regulatory Act was amended.
- 2003 Reorganization of the Ministry of Education into five basic commissions.
- 2003 Establishment of the Office of the Basic Education Commission (OBEC).
- 2003 ONEC became the Office of the Education Council (OEC) and became part of the Ministry of Education.
- 2003 The Ministry of Universities became the Office of the Higher Education Commission (OHEC) as part of the Ministry of Education.
- 2003 The Office of the Vocational Education Commission (OVEC) was created.
- 2003 Major reform of preservice teacher education.
- 2003 The Teachers and Educational Personnel Council Act, requiring teachers to be licensed.
- 2003 Teachers' Council announces professional standards for teachers.
- 2003 The curriculum for early childhood education was announced.
- 2003 The International College of Payap was established.
- 2003 The National Defense College was opened up to politicians.
- 2003 The program of rongrian withiput (Buddhist-oriented schools) was established.
- 2004 The Rajabhat University Act was announced.
- 2004 Rajabhat Institutes were transformed into Rajabhat Universities.
- 2005 The Rajamangala University of Technology Act was amended.
- 2005 The National Institute for Educational Testing Service (NIETS) was established.
- 2005 The Thai-Nichi Institute of Technology was established.

- 2005 The National Institute for the Development of Teachers and Educational Personnel (NIDTEP) was established.
- 2006 The Arsom Silp Institute of the Arts was established.
- 2006 The ASEM-DUO Secretariat was established.
- 2007 Patani Malay-Thai MTB-MLE Program in the deep south was launched.
- 2007 The Samasikkha Seven Community Schools Network was established.
- 2007 Arsom Silp Institute of the Arts, established as a not-for-profit alternative form of higher education, first such institute of higher education in Thailand.
- 2008 The second 15-Year Long-Run Education Plan (2008–2022) was issued with a focus on quality assurance.
- 2008 The Basic Education Core Curriculum was developed.
- 2008 The National Basic Education Curriculum was announced.
- 2008 The Non-formal and Informal Education Promotion Act was approved.
- 2008 The National Committee on Early Childhood Education was established.
- 2008 Science, Technology and Innovation (STI) was established.
- 2008 The Pridi Banomyong International College (PBIC) was established at Thammasat University.
- 2008 The Stock Exchange of Thailand (SET) created the Capital Market Academy (CMA).
- 2008 The Chamber of Commerce created the Top Executive Program in Commerce and Trade (TEPCoT).
- 2008 The passing of Princess Galyani Vadhana.
- 2009 The Second Round of Proposals for the Second Decade of Education Reform (2009–2018) was announced.
- 2009 National Research Universities Project initiated. Nine such universities named.
- 2009 Free schooling was expanded from 12 to 15 years to include 3 years of preschool.
- 2009 The Malaysia-Indonesia-Thailand (M-I-T) Student Mobility Pilot Project was initiated.
- 2009 The Election Commission created an Institute for the Development of Politics and Elections.
- 2009 The construction of the Southeast Asian Music Museum (SE-AM Museum) began at Mahidol University.
- 2010 The Little Scientists' House project was started by HRH Princess Maha Chakri Sirindhorn in 221 schools.
- 2011 OHEC establishes the Thailand Qualifications Framework (TQF) for 5-year BEd programs.

- 2011 The Thailand Professional Qualifications Institute (Public Organization) was founded to promote a professional qualification system in Thailand.
- 2011 National standards for early childhood centers were established.
- 2011 The Association of Alternative Education Council was established.
- 2012 The National Education Development Plan (2012–2016) was developed.
- 2012 At the sixth Thai-US Education Roundtable hosted by the University of Minnesota, Thai educators were introduced to the STEM concept.
- 2012 Teach for Thailand was founded (in collaboration with the Faculty of Education, Chulalongkorn University).
- 2013 Professional standards for teacher education are revised.
- 2013 An induction program for new teachers was launched.
- 2013 Bangkok was declared Book Capital of the World.
- 2013 The Research and Researcher for Industry (RRI) project was launched.
- 2014 The National Council for Peace and Order (NCPO) was established.
- 2014 IPST established 13 STEM Education Centers in Bangkok and around the nation.
- 2014 The Chitralada Technology College was established.
- 2015 The Rayong Advanced Institute of Science and Technology (RAIST) was inaugurated by HRH Princess Maha Chakri Sirindhorn (subsequently renamed to be the Vidyasirimedhi Institute of Science and Technology, VISTEC) to be part of a Thai “Silicon Valley,” with support of PTT.
- 2015 The Royal Institute of Thailand was renamed the Royal Society of Thailand (its original name).
- 2015 Super Board for educational policy and development was established (to oversee education reform).
- 2015 Rayong Science Academy (RSA) opened with its first group of students (subsequently renamed Kamnoetvidya Science Academy School), supported by PTT.
- 2015 The late Princess Prem Purachatra was named an Eminent Personality of the World by UNESCO.
- 2015 A Community College Act went into effect.
- 2016 The restructuring of educational decentralization was announced with a reduction in the influence of Educational Service Areas (ESAs) with provinces becoming the primary locus of local education management.
- 2016 The 43rd National Book Fair and 13th Bangkok International Book Fair held, organized by the Publishers and Booksellers Association of Thailand.

- 2016 Passing of HM King Bhumibol the Great, “Teacher of the Land,” longest reigning monarch in the world.
- 2016 Passing of Kammaan Khonkhai (Khru Bannok) (the rural school teacher).
- 2016 Dr. Teerakiat was named Minister of Education.
- 2017 The 100th anniversary celebration of Chulalongkorn University.
- 2017 Her Royal Highness Princess Maha Chakri Sirindhorn was conferred with Padma Bhushan, India’s third highest civilian award, by President Pranab Mukherjee at a special function held at Rashtrapati Bhavan in New Delhi.
- 2018 Thai University Central Admission System implemented.
- 2018 Government launches biggest ever career training program (2 billion baht).
- 2018 Thai universities fare poorly in the 2018 World University rankings.
- 2018 Ministry of Education decides that it is up to the schools and their monastic landlords to decide on the dress code for Muslim students.
- 2018 The 2019 budget for human resource development was decreased 2.6%.
- 2018 Thailand opens about 50 independent ‘partnership schools’ across the country.
- 2018 Increased emphasis on the Eastern Economic Corridor as an integral part of Thailand’s 4.0 development scheme.
- 2018 Thailand hosts the 46th National Book Fair and 16th International Book Fair.
- 2018 Thailand hosts the 2018 International Conference on Education and Global Studies.
- 2018 Prime Minister Prayut orders the formation of a new Ministry of Higher Education, Research and Development.
- 2018 After a two-year delay, ONESQA announces a fourth round of school assessments.
- 2018 The Ministry of Education announces it will spend 3 billion baht to hire more administrators so that after October 1 will no longer have to do administrative work.
- 2018 Thailand hosts the 2018 Research Expo, organized by the National Research Council of Thailand (NRCT).
- 2018 Thailand hosts the National Science and Technology Fair organized by the Ministry of Science and Technology.
- 2018 Thailand hosts the World Stamp Exhibition.

Part I
Background: The Thai Context

Chapter 1

History and Development of Thai Education



Her Royal Highness Princess Maha Chakri Sirindhorn

Abstract This chapter begins by examining the indigenous Thai concept of education. It then provides an overview of the historical evolution of Thai education. This section describes education in the old days when monks were the teachers and temples were the schools. Then it discusses the visionary reforms of King Rama V or King Chulalongkorn the Great, my great-grandfather, to modernize and secularize Thai education and to extend education to the provinces. It also describes how His Majesty was far ahead of his times in terms of taking two extended trips to Europe and visiting other parts of Asia such as India and Indonesia to learn from other systems of education and cultures. This chapter touches on many aspects of education to stimulate further reading and discussion, especially with respect to comparative perspectives on educational development. More elaborate details on these various topics are provided in subsequent chapters of the book. In the latter part of the chapter, there is information on various special projects which I have launched in the past 37 years to improve access to Thai education for all and to raise its quality such as education for various disadvantaged groups, science schools for the gifted, and education for disaster victims. This chapter should provide readers with a historical introduction to Thai education about which they can read in other chapters to learn more in detail about contemporary Thai education and the many challenges it currently faces.

This chapter is based on an earlier presentation prepared for the Stanford Overseas Seminar on “Thailand: Education, Development, and Globalization,” August 29, 2008, at Chulalongkorn University.

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1.1 History

1.1.1 *The Thai Concept of Education (Śueksa) (ศึกษา)*

The word “education” is “*kansueksa*” (การศึกษา) in Thai. *Śueksa* (or *śukṣa*) is derived from Sanskrit (*sikṣa*) (ศึกษา) or (*sikkha*) in Pali, and “*kan*” (การ) is a Thai prefix to make the word a noun. The root word is “*sak*,” meaning “to be capable.” “*Sueksa*” means “to want to be capable.” So education is the process of learning to make a person more capable and competent. In Pali, a person in the process of learning is called “*sekkha*” or “*sekha*,” from the root word “*sikkha*.” The enlightened ones who have attained *nirvana* are called “*asekkha*,” meaning those who have finished studying and need no further instruction. This means that at its roots the Thai word for education means the process of developing wisdom and capability. All must have education if they want to be more capable and productive. Therefore, formal education is for developing a child holistically in all aspects, including knowledge, skills, psychomotor, character, and moral values. It also prepares students for self and family support with social responsibility.

1.1.2 *Ancient and Early Forms of Education*

For most of its long history, a formal school system did not exist in Siam. Knowledge was transferred informally in the family, from fathers and mothers to sons and daughters. This was essentially informal vocational education in which fathers taught their sons a trade or craft such as rice planting, carving, carpentry, painting, construction, or even governmental administration. Mothers taught subjects such as weaving and cooking. In the palaces and among rich families, education was more formally provided for their boys and girls. The Buddhist temples not only performed religious functions, but they were also sources of knowledge and everyday expertise. Apart from those opportunities, ordinary people, mostly boys, who wished to study music, arts, and crafts, had to seek out masters of knowledge and became their students. Once one was accepted as a student, the master would then teach such pupils on a one-to-one basis. Obedience, service, respect, and gratitude were expected from the students in return.

Education has been highly valued in Thai society since antiquity, but it was often limited to boys. The teachers were generally monks and the educational venues were usually temples (see Fig. 1.1). A Dutch eyewitness described monastic education in seventeenth-century Siam as:

Till their fifth or sixth year the children are allowed to run about the house; then they are sent to the priests to learn to read and write and to acquire other useful arts. Those who serve the priests in public worship (novices) go very seldom home. When they can read and write properly they are sent to learn a trade or take up some other employment. Frequently, however, the cleverest of them are allowed to pursue their studies, on account of the greater talent which they display. Instruction secular as well as religious is given solely by the

Fig. 1.1 Picture of a monk teaching a student in the old days (Cover of the book, *Buddhism and Education*, by Phra Rajavaramuni 1987)



priests till they are qualified to fill public positions and offices. They then discard their yellow robes, but many intelligent and talented pupils remain in the monasteries in order to become heads of temples and schools, or priests. (Schouten 1889, p. 15)

Watson (1980) notes that this description accurately describes Siamese monastic education 200 years before and after the seventeenth century indicating an impressive historical continuity. He also argues that this system served the Siamese well for around 600 years and in many ways was outstanding (p. 74).

Here are some statements translated from a few old Thai poems or proverbs that I learned when I was little, reflecting the importance of education in traditional Siamese society:

“You should learn when you are young,
to be able to earn money when you grow up.”
(An ancient Thai proverb, Suphasit Phra Ruang)

“When there is an opportunity to learn,
you should learn as much as you can.”
(Francois Touvenet Hilaire (1881–1968), a French missionary; the author of the famous Thai textbook, *Darunsueksa*; and the headmaster of Assumption College, 1901–1968)

“If you are in any trouble,
only knowledge can help you.”
(Francois Touvenet Hilaire)

“If you have even one kind of knowledge,
and if you know it well,
it will give yourself much benefit.”
(Francois Touvenet Hilaire)

“You should not think you are from a noble family,
for life is not certain. There can be big changes anytime.”
(Kamchai Thonglorm, 1906–1985, a Thai language expert)

1.1.3 Westernization and Modernization

As mentioned above, the Siamese valued education highly. We have had our own alphabet, created by King Ramkhamhaeng the Great of the Sukhothai Period, since 1283. Even though the alphabet today is quite different from the original one, we can still trace it back to its origins long ago in the thirteenth century, created through the vision of a great king. In the seventeenth century, around the end of the Ayutthaya Period (1351–1767), Western knowledge and technology were introduced to Siamese society. Building construction, astronomy, military technology, and maritime trade were among the Western technologies and fields coming into Siam at that time. This coincided with the age of science and technology in the West, and the waves of Western technological influx into Siam increased steadily over time.

Since the early nineteenth century, ship building, medicine, and education were introduced. The monarchy in Siam was open to allow missionaries to enter the country to pursue both their religious and secular activities. In 1848 during the reign of King Rama IV, Wang Lang School was established by Presbyterian missionaries. This school later became the Wattana Wittaya Academy, one of the nation's most successful girls' schools. In 1852, there was an establishment of a second private school, the Bangkok Christian College, for boys only also set up by Protestant missionaries.

Many Western missionaries came to Siam in the nineteenth century. Probably the most famous was Dr. Dan Beach Bradley who served in the country from 1835 to 1873, for a total of 38 years (Bradley 2004; Bradley 1984; Lord 1969; Thai Khadi Research Institute 1985). His most profound influence was the establishment of a printing press using Siamese script, which had important implications for the development of Siamese education as well as intellectual and cultural life.

The eighteenth century was the age of enlightenment in the West. It was the golden age of scientific and technological discoveries, resulting in the industrial revolution. It was also the time at which Western imperialism and colonization spread across the globe, including Southeast Asia.

Siam was no exception and was vulnerable to such powerful colonial Western forces. During the reigns of King Rama III (1824–1851) and King Rama IV (1851–1868), imperialism and colonization were a major growing threat. There was an urgent need for Siam to modernize the country, and at that time, there was little choice but to become modernized according to Western standards as a strategy to avoid colonialization. This called for modernization of education to prepare highly skilled human resources, and a Western education system was, thus, introduced at that time.

1.1.4 Education Reform in the Reign of King Chulalongkorn the Great (King Rama V)

The first systematic reform of Siamese education took place in the reign of King Rama V, my great-grandfather (1868–1910) (Sirindhorn 1978). He introduced not only an education reform and change of the education system, but it was the building of a totally new foundation of Siamese education, which included the development of new curricula, educational standards and regulations, administrative structure, and faculty, staff, and administrator development. For King Rama V, education was not only for training people to serve in the government, but his vision went well beyond that. He also advocated *education for all* to enhance better living and good citizenship. In the earlier part of his reign, education was still closely connected to religion, with a strong emphasis on moral education. Monks were the teachers and temples were the schools.

Early in his reign, King Rama V established a Siamese language school and a year later an English language school in the palace. Those were schools in the modern sense. That is, there were school buildings, timetables, curricula, and lay teachers. Despite his idea and vision of a new system of education, he still supported traditional education in the temples as well as a few new Western schools established by both Protestant and Catholic missionaries. The latter came to be known as *rongrian farang* (โรงเรียนฝรั่ง) (Western schools), schools normally considered as highly prestigious. One such school is Assumption College, whose headmaster from 1901 to 1968 was the French missionary, Francois Touvenet Hilaire (“the Sage of Assumption”), quoted above and who became so talented in Thai that he produced the famous Thai textbook, *Darunsueksa*, still used today.

For girls, King Rama V set up a girls’ school, Sunanthalai, in 1880, but soon after it was closed until much later on when women’s education became more popular. He also founded specialized schools, such as the Military School, the Royal Pages School, and the Cartography School. Later on the Military School was turned into a general school, after which the graduates could continue their studies in specialized schools.

King Rama V also modernized the country by reforming the government and its administrative structure. There were ten ministries at that time. The Department of Education that had been founded in 1887 became the Ministry of Education in 1892 as part of this reform (MOE 1994). In 1898, the first educational plan was launched. The most significant part of the plan was the educational organization that covered preprimary, primary, secondary, and technical education up to higher education. The first university, Chulalongkorn, in Siam was formally established in 1917 during King Rama VI’s reign, and four years later in 1921, the Compulsory Primary Education Act was proclaimed (Manich 1951).

King Rama V realized that education was the most important factor for development. However, it took a long time to develop human resources to respond to the challenging task of modernization. So he had to hire many experts from abroad, for

example, medical doctors, lawyers, train and road engineers, and engineers in other fields to facilitate the modernization process.

Unusual for a leader at his time, King Rama V made two major extensive trips to Europe, one in 1897 and the other in 1907. He also visited Java three times, Singapore, Malaya, and India. During his trips to Europe, he visited 14 countries and was there for a total of 15 months. Through such travel, he not only developed extensive knowledge of other countries and cultures but demonstrated a true talent for diplomacy, building good relations with many other important and influential nations such as England, Russia, France, and Germany. This certainly helped Siam avoid colonization.

Partially as the result of such travels, he developed the visionary policy of supporting bright intelligent Siamese (mostly boys) including his own sons to study primarily in Europe but also the USA and Japan (see Chunlachakkrachong 1958). The King was a fervent supporter of European education. The “King’s Scholarships” were initiated at that time. This model of study abroad inspired Thai parents later over the decades to send their children abroad for study. Some officials were also sent abroad, for example, to Switzerland, the USA, Egypt, India, and Japan, to study and learn from their educational systems.

The first government school to offer education to all was established by King Rama V in 1884. It was located on the grounds of Maharnabaram Temple, a royal temple in Bangkok. Later on many other schools opened, both governmental and private. He supervised writing the new textbooks for these schools and commented on each book himself. Similar schools were built in other provinces outside Bangkok. In short, from the beginning, King Rama V visualized education as an urgent need for *all people*, boys and girls, and it was no longer limited to those from the royal or noble families.

To develop higher education, he founded a number of small specialized schools, like the Royal Pages School, the School of Engineering, the School of Law, and the School of Medicine. Early in his reign, King Rama VI founded Siam’s first university, Chulalongkorn University, in 1917 by merging existing schools and adding some new faculties. In the beginning, the purpose of the university was to train high-level human resources for positions in many newly established governmental organizations. Later on, the university was also open to those who chose to work outside the government. Tej Bunnag (1970) provides an excellent overview of the evolution of Siamese education from monastic education to a modern system with a university during the era, 1824–1921.

King Chulalongkorn the Great is, therefore, regarded as the founder of modern education in Thailand. His strategy was to develop education for the military group first, and then he extended it to civilians. He laid the foundation for education by studying the education systems in other countries and selected what was best for Siam. He was deeply concerned about how to modernize the country and yet to be able to maintain important Siamese traditions at the same time. Looking back, one can see how difficult it was to save the country from being colonized, and Siam was the only country in the Southeast Asian region that actually was never colonized. In concluding his insightful study of education reform during the reign of King Rama V, Cornell historian David Wyatt (1969, p. 385) aptly notes King Chulalongkorn’s special place in world history:

If there is a single thread running consistently through this long period, it is the insistent presence of the king, who was his country's most devastating critic, its gadfly prophet, its guiding spirit through a revolutionary epoch in world history. He was in Sidney Hook's phrase, an 'event-making man,' who took his generation and his country by the ear and flung them outside into the world. His rare understanding of both what it meant to be Thai and the skill with which he manipulated the power at his command meant for his country the preservation of its independence and the creative shaping of its modern identity. Many kings have been remembered for less: few could be thanked by their country for more.

1.2 Thai Education in the Modern Era

1.2.1 *Educational Changes After the 1932 Revolution (Change to a Constitutional Monarchy)*

The new constitution enacted as the result of this major political transformation mandated that all Thais should complete four years of primary school (Article 56). In 1935 the primary Education Act of 1921 was enforced nationwide. It was the government's responsibility to develop and support education (Article 63). In 1933, a number of key principles were announced, namely, educational opportunity should be expanded, literacy education was to be developed, and higher education was to be developed. Thammasat University was established in 1934. After World War II, a new National Education Plan was introduced in 1960. The structure of Thai education changed to a 4-3-3-2 system.

1.2.2 *Greater Unity in Education*

During 1973–1976, an education reform initiative emerged emphasizing several important themes (ONEC 1976). At the time, four different ministries were involved in education. Rural primary education (*rongrian prachaban*) (โรงเรียนประชาบาล) and local municipal education were managed by the Ministry of Interior. The Ministry of Education handled secondary education, vocational education, teacher training, private education, and adult education. The Ministry of University Affairs handled higher education. The National Education Commission, responsible for educational policy and planning, was under the Office of the Prime Minister. As part of this reform, primary education was moved to be part of the Ministry of Education in 1980. This was to have significant implications for improving access to lower secondary education. Many primary schools became "schools for expanded opportunity" (*rongrian khayai ogat*) (โรงเรียนขยายโอกาส) adding three years of lower secondary education at these schools, greatly enhancing access to secondary education in remote rural areas.

1.2.3 Call for Greater Equality and Equity in Education

There was a concern about serious educational inequalities and disparities. Various policy-oriented research studies were sponsored to identify major problems in these areas and to introduce policies to improve educational equality and equity and social justice. There was also an emphasis on more data-driven decision-making (OEC 2006).

1.2.4 Structural Changes and Enhanced Support for Nonformal Education (See Chap. 8)

The reform committee proposed a change in structure from 4-3-3-2 to 7-3-2, and finally to 6-3-3, primarily because many, especially those in remote rural areas, were finishing only four years of primary schooling. This change in structure was formally adopted in 1977. Under the new structure, the expectation was that all children would complete six years of compulsory schooling. There was also an emphasis on accelerating and providing greater support for nonformal education and a call for the greater decentralization of education.

1.2.5 The 1999 National Education Act

Since the important reforms of King Rama V, the major most significant education reform occurred in the year 1999, when the legislature passed the 1999 National Education Act (NEA). The call for a major reform was from both within and without education circles. The declining quality of education in a rapidly advancing information technology society had provoked the rethinking of Thai education, the focus of this book. We are now still in the process of implementing the reform according to this 1999 law, which articulated the following key progressive principles and policies:

- Equal right and opportunity of 12 years of basic education for all including 12 years of free schooling (later expanded to 15 years in March 2009 to include three years of kindergarten)
- Student-centered teaching and learning to develop all children to their highest potential
- Decentralization of educational administration
- Lifelong education and continual learning
- Standards and professional development of teachers and educational personnel
- Quality assurance
- Government's commitment of budgetary support
- Participation of all sectors in educational resource development (*All for education and education for all*)

1.3 The Current Educational System in Thailand

As noted above, in 1977, the educational system in Thailand was changed from a 4-3-3-2 to a 6-3-3 structure, in which 6 years of compulsory primary education was followed by three years of lower secondary education (or secondary I) and then another three years of upper secondary education (high school or secondary II). At the upper secondary level, students may choose to go to general or vocational schools. At present the ratio of those continuing in general education to those in vocational is approximately 60%:40%. The 6-3-3 system is still in use today, but the compulsory education was raised from six to nine years as part of the 1999 education reform. The education from primary to upper secondary is 12-year basic education (see Chap. 4), which includes a figure showing the basic structure of Thai education from preschool to graduate education.

At present, education in Thailand is based on the framework articulated in the 1999 National Education Act. According to the Office of the Education Council, the average years of schooling of the 15–59 age group population increased from 8.1 years in 2003 to 8.7 in 2007 and to 8.9 in 2013.

Beyond basic education is higher education which is provided in public or private universities, colleges, or other types of institutions. As of 2017, there were 157 degree-granting universities/colleges under the Office of the Higher Education Commission (OHEC), Ministry of Education, in Thailand. 82 of them are public institutions, and 75 are private institutions. These do not include a few specialized universities/colleges in other ministries (such as health colleges administered by the Ministry of Public Health) and the 19 degree-granting technical institutions under the Office of the Vocational Education Commission, Ministry of Education. The lower-than-degree or diploma level is offered by state and private colleges and institutions, vocational colleges, community colleges, as well as colleges of physical education, dramatic arts, and fine arts. The majority of courses offered are related to vocational or technical education which normally requires 2 or 3 years of study.

The college degree programs require at least 2 additional years of study for students who have completed diploma courses and 4–6 years for those finishing secondary or equivalent courses. Generally, a master's degree program requires 2 years of study following a bachelor's degree, and a doctorate is awarded after about 3 or 4 years of study following a master's degree.

Formal education is also provided by special and welfare education, vocational education, special vocational education, education for ecclesiastics, specialized education, and international education in international schools (see Chap. 11).

There are also nonformal education services provided by both public and private bodies to those outside the formal school system (see Chap. 8). These services can be both general and vocational education. The 1999 Educational Act also permits and encourages informal education in which learners learn by themselves according to their interests, potential, readiness, and opportunities available from individuals, society, environment, media, or other sources of knowledge. It is provided by

libraries, museums, and science/technology centers, as well as by mass media and community learning networks. All ministries are involved in providing informal education to promote lifelong learning (see Chap. 8).

1.4 Educational Administration and Management

In accordance with the 1999 National Education Act and the 2003 Bureaucratic Reform Bill, the administration and management at the central level is under the responsibility of the following five main bodies of the Ministry of Education:

- The Office of the Permanent Secretary
- The Office of the Education Council
- The Office of the Basic Education Commission
- The Office of the Higher Education Commission
- The Office of the Vocational Education Commission

The 175 educational service areas in 76 provinces were established in 2003 under the jurisdiction of the Basic Education Commission in response to the mandate for decentralization of authority for educational administration, with 172 areas in the provinces and 3 areas in Bangkok. Each educational service area is responsible for approximately 200 educational institutions in which there are around 300,000–500,000 students. In 2008, 10 additional educational service areas were approved by the cabinet following the advice of the Office of the Education Council, Ministry of Education, bringing the number of the educational service areas (ESAs) to 185. Then the 3 former areas in Bangkok were merged into 1, bringing the total number currently to 183, and in addition, there are 42 secondary educational service areas. Currently there are now 225 ESAs.

Also in accordance with the National Education Act, local administration organizations can provide education at any or all levels of education according to their readiness, suitability, and the requirements and special needs of the local areas. Private educational institutions can provide education at all levels and of all types. Before the Act, the Bangkok Metropolitan Administration (BMA) had already successfully managed over 400 schools in Bangkok. More and more other local administrations are applying for the transfer of the schools in their localities from the Ministry of Education to be under their local administrations, as more and more government budget is allocated to them according to the 1997 Constitution. This is part of the decentralization process.

The Office of the Non-formal and Informal Education is under the Office of the Permanent Secretary. It provides adult education and education for both children and adults of diverse ethnic groups in remote areas (see Chap. 15). It also serves special cases, such as prison inmates and chronically ill children in hospitals.

1.5 Examples of Special Educational Development Projects Which I Have Launched

1.5.1 Education in the Remote Areas

In 1980, I started my first health and nutrition project in three schools. All of these were border patrol police schools. They were established over 60 years ago by the border patrol police of the Police Department to educate children in remote villages along the borders of Thailand. The remote areas here mean the places that are difficult to access and are far from the normal services provided by the Ministry of Education. In such areas, it was difficult for civilian teachers to serve. At first the border patrol police had informally taught pupils how to read and write on a voluntary basis. Now the schools are registered institutions for formal education, mostly at the primary education level.

I chose the three schools because I had worked with the border patrol police and knew that they could help me serve children in these kinds of schools. The schools were not the most remote and not so difficult for me to work on as the first project of my own. My primary aim was to feed the children, and I paid for the project by myself. I had to think hard about how to do the most in a cost-effective way and how to make it sustainable. I asked the schools to start with the “Agriculture for School Lunch” project. They did and it worked well. First, we could feed the students only once a week and then two lunches a week. We could finally do it every school day. Later on in the case of the boarding students, we could feed them three times a day every day.

From the single aim of feeding the children, I encountered many more unforeseen problems existing in such remote areas, both directly and indirectly related to education for these disadvantaged students. The direct problems were the need to train teachers in pedagogy; lack of teachers in specific subjects, especially science, mathematics, and languages; and inadequate educational media and other resources. The indirect problems were more serious, and some of them had to be taken care of first. They were unhygienic living conditions leading to ill health and diseases, inadequate public utilities like water supply, malnourishment, environmental deterioration, and language barriers due to ethnic differences.

The project has given me a special opportunity to learn by doing and to gain skills in action research. I have continually taken notes, studied, asked for help from experts in different fields and also from government authorities, followed up, and then assessed the project. Each problem is analyzed and solved. As of 2016, this project covered 814 schools and learning centers. The schools in this project include 204 border patrol police schools under the National Police Office; 208 public and 16 private schools under the Ministry of Education, including madrasas under the Ministry’s Office of the Private Education Commission; 25 schools under the Bangkok Metropolitan Administration; 39 schools/centers under local administrations; and 69 schools for Buddhist novices under the Buddhism Promotion Office, the Ministry of the Office of the Prime Minister. The rest are the “community learn-

ing centers” under the Office of Non-formal and Informal Education of the Office of the Permanent Secretary, Ministry of Education. They provide basic education to the people, both adults and children, through the nonformal and informal education system (see Chap. 8). They are very helpful in small communities in extremely remote places where transportation and communication are very limited. Some learning centers have only about 30 children, and they learn in a mixed class including pupils from kindergarten to grade six with only one or two teachers.

All these years I have learned that education is far more complex than it seems. Each school, or even each individual, is different, and one size cannot possibly fit all. We may think of and talk about education looking at the big picture, like education for national development, but in practice we have to take care of so many different details to respond effectively to diverse and pressing needs at the local level. Education, however, can work at the microlevel. It is the goal for all humans to develop and to realize their full potential, and at the end, the child becomes an effective human resource, not only as a good and capable individual but also as a true citizen who can contribute to the community, the society, and the world as a whole. Over time, there have been favorable results from this project for which we are proud. Some students coming from the remote schools can continue their education up to higher education. Those who do not go on can have good jobs or even create their own. Now we have graduates in engineering, computer science, nursing, medicine, and other prestigious fields. Some have master’s degrees, and in the future, there may be even some doctorates.

In helping the schools in this way not only do we educate the children, but we also help develop their communities. Schools can act as “village centers” by providing the people in the villages with knowledge and also services from school facilities such as computers to provide access to information and knowledge they need for community development and marketing their local goods and products.

1.5.2 Government and Private Schools

1.5.2.1 Active and Innovative Teaching and Learning in Science and Mathematics

Besides the remote schools, there are a few government and private schools in the cities where I have implemented some special education projects. For example, in 1999 there were five secondary schools in which I tried out active teaching and learning innovations in science and mathematics with the cooperation of the Graduate School of Education at the University of Pennsylvania. Before the implementation, a group of 13 teachers and principals had been trained at the University of Pennsylvania in innovative teaching methods. The pilot project lasted 3 years, and now this method has been implemented in hundreds of schools all over Thailand, with the support of the Ministry of Science and Technology, the Institute for the Promotion of Teaching Science and Technology (IPST), and the Ministry of

Fig. 1.2 Little Scientists' House project (photo courtesy of Her Royal Highness Princess Maha Chakri Sirindhorn's Personal Affairs Division)



Education. In fact, such innovative methods for teaching and learning are effective for almost all subjects.

In 2010, I started the active teaching and learning of science at the preschool level in the “the Little Scientists’ House” project, following the German model “Haus der kleinen Forscher.” Now it is being implemented in about 14,000 schools and is expanding to the primary school level, by many public and private organizations (see Chap. 17) (see Fig. 1.2).

1.5.2.2 Science and Mathematics Programs for the Blind

Several years ago, I started a small project to support a few blind students graduating from lower secondary schools to study in the high school science program of a famous private school, St. Gabriel’s College. This is a Catholic K–12 school that has agreed to help me in this project. There is an advantage of working with private schools. In this case, we requested the school to help admit special students. Without their helpful cooperation, the blind would not have had a chance to study in the science program. This was quite unacceptable among the Thai schools in general.

I started this project as an experiment. With the help of the Association for the Blind, we obtained needed teachers and tutors. We had to design the Braille system of scientific symbols. The project has been quite successful. A few students can get into science and engineering programs of the universities, mostly computer science, and in the future, they can pursue scientific careers just like others.

1.5.2.3 School Botanical Gardens

I started the School Botanical Gardens project in 1994, and it has been implemented in schools throughout the country ever since. This project aims at conserving and studying local plant biodiversity and their uses by promoting and supporting the schools to develop their own botanical gardens. This is a good learning resource where students can learn to love nature and how to integrate many subjects, including science, mathematics, arts, physical education, social sciences, music, and languages, as they grow, tend, and study plants.

1.5.3 *General and Vocational Education*

Chitralada School was first founded as a private school in 1955 by His Majesty King Bhumibol Adulyadej at the Amborn Sathan Villa, Dusit Palace. Later on it was moved to Chitralada Villa, the palace residence of their majesties and the royal family. The purpose was to educate his children, but it has also been admitting other students. His Majesty would like to supervise the schools himself to make sure that his children would be treated like other students and would not get any privilege over others. I studied in this school for 15 years.

After I graduated from the university, I have been taking care of Chitralada School on behalf of His Majesty. This school has taught me much about different types and problems of education and educational management. Within the compound of Chitralada Villa, there are many ongoing experiments of His Majesty, in which the students can experience hands-on activities related to agriculture, biodiversity, agronomy, arts, and handicrafts, for example. I think it is extremely important for students to learn both theory and practice. One without the other would not be good education. I have also learned about education for children with special needs, such as those with autism, learning disabilities, psychological problems, and dyslexia.

The upper secondary education of Chitralada School provides general education. In Thailand most students from lower secondary schools enter general education high schools. Less than 40% of the students go to vocational high schools (see Chap. 7). This has been the trend for many years, because most Thai students aspire to enter famous academic universities, and also there are not enough good vocational schools and teachers. Vocational education is viewed as an inferior track of choice, even though some may be talented in the vocational and technical area.

Recently I have established a vocational branch of Chitralada School. I think that students who do not perform well in academic subjects should be trained in vocational education to enhance their future job opportunities. Moreover, those who are talented in vocational and technical skills should have an opportunity to develop their skills to higher levels in good vocational schools. I hope to make the Chitralada Vocational School a good choice of education for students graduating from lower secondary schools. In fact, some can even pursue their further study in many univer-

sities of technology. In 2014 a foundation that I chair established Chitralada Technology College, a private college, for offering technology education at the bachelor's degree level.

A developing country like Thailand needs high-quality human resources with vocational and technical skills. I hope to see more development and promotion of vocational education in the future (see Chap. 7) to achieve a better balance between these two basic tracks of education.

1.5.4 Education for Disaster Victims

In 2004 there was a disastrous tsunami hitting the west coast of southern Thailand. About 5000 people were killed. This was the worst natural disaster that ever happened to Thailand resulting in huge casualties. Besides the immediate relief and rehabilitation for the victims' families, a more long-lasting effect was on the surviving children of the local victims. We had to construct many new houses and schools to replace the old ones destroyed by the tsunami. We had to give them the tools they needed to have to earn their income. The more difficult part was to heal the minds of those who had witnessed firsthand this dreadful and tragic disaster (see Weber 2005).

Many nongovernmental organizations in Thailand and from abroad as well as individual volunteers rendered their helping hands. One good example is the project of the Children's World Academy Foundation, the chair of which is German. They built a new school for orphans created by the tsunami. This is in Phang Nga province in southern Thailand. It is a boarding school run by a few full-time Thai teachers and a number of international volunteers and supported by generous donations. The school was envisioned as a self-support school, by growing plenty of orchards and building an international guest house at the school. These activities are incorporated into the curriculum, and the children are trained in both academic and vocational skills. The school is also both the children's home and workplace at the same time. This is an innovative model of schooling.

1.5.5 Government Welfare Schools

I have mentioned the border patrol police schools. Those are one kind of government welfare school for disadvantaged children. There are many other welfare schools all over Thailand, under the Special Education Division of the Office of the Basic Education Commission, the Ministry of Education. The Suksasongkroh (welfare) schools were established to provide free education and boarding for many types of disadvantaged children. They were mostly impoverished children, deserted children, orphans, and children of diverse ethnic groups. The schools also accept children affected adversely by HIV/AIDS and narcotic drugs.

There are also Rajaprachanukroh welfare schools. Historically Rajaprachanukroh schools were founded by His Majesty King Bhumibol Adulyadej in the 12 southern provinces badly hit by a devastating typhoon in 1962. The worst damage was at the Talumpuk Cape of Nakhon Si Thammarat, where the first welfare school was built. The Rajaprachanukroh Foundation, founded initially by His Majesty with funds from the donations left from this disaster relief, has helped establish many more Rajaprachanukroh schools in other parts of Thailand, admitting disadvantaged students and providing room and board for some of them. Besides supporting these schools, the foundation takes care of the victims of both natural and human-made disasters, such as fires, floods, and soil erosion.

Currently there is no clear-cut difference between Suksasongkroh and Rajaprachanukroh welfare schools. There are also many other kinds of welfare schools, both governmental and private. Besides the schools for special education, the Office of Basic Education Commission encourages regular public schools to also admit disadvantaged students and become the so-called inclusive schools. According to a report of the Office of Education Council, in 2015 there are 51 welfare schools under the Office of the Basic Education Commission, with special vocational training for future employment in their localities (OEC 2015).

In 2006 the government welfare schools, excluding the border patrol police schools, took care of about 40,000 disadvantaged students, about 30,000 of whom are boarders. The border patrol police schools enrolled about 28,000 students, mostly children from ethnically diverse groups (OEC 2007a).

1.5.6 Schools for Students with Disabilities

Formal education for children with disabilities is provided in welfare schools, special schools, and inclusive schools. Srisangwal School, a private school named after my grandmother and supported by the Foundation for Helping the Disabled under the patronage of the late Princess Mother, is well-known for its expertise in education for disabled children. There are also special schools for children with specific types of disabilities, such as schools for the deaf and for the blind. I have worked with disability cases in many schools in Bangkok and provincial areas depending on which schools are most convenient for the disabled children and their families.

I myself have revived a school in the compound of the Grand Palace, Phra Tamnak Suan Kularb School. It was an old school, in fact the first school established by King Rama V. Besides educating children of the personnel in the Grand Palace, I set up a center for the education of deaf students in this school. One deaf girl, Ms. Jakrada Attarataya, an alumna of this school, graduated with honors from the Faculty of Science, Chulalongkorn University, and won a government scholarship to study abroad, committed to work at the National Synchrotron Center upon her return to Thailand. She earned her Ph.D. in protein crystallography from the University of Bristol in the UK and is now a scientist at the Synchrotron Center.

In 1999 I set up a special ICT Fund to promote the use of ICT to help persons with disabilities in their education and daily activities. I use this ICT Fund to purchase assistive devices and equipment from abroad and asked the working group to do research to produce personalized equipment and devices for them.

The ICT Fund is used to provide computer facilities in selected schools and homes of the disabled. Assistive technologies such as switch or trackball mice, intellitools, communication devices, special educational software, and computers were also provided. We trained the teachers and the caregivers to use such equipment and devices. The classrooms were also arranged in such a way that the children with disabilities could use the ICT and assistive technologies properly and easily.

We worked on many case studies with different types and levels of disabilities. Each case needs a different kind of assistive technology. We followed up the progress of those cases for many years and found favorable results. Young students developed their motor skills and learned the lessons better. A few disabled students who graduated from high school were employed in a computer maintenance center.

1.5.7 Education for Prison Inmates

I started a project for prison inmates in 1997. In my opinion, vocational skill development, coupled with moral education, can be effective to rehabilitate them. If they are trained in the skills that are in high demand such as computer skills, they will have a good chance of getting jobs and consequently become good and responsible citizens after they are freed.

In fact, there are training programs in arts and crafts for prison inmates in Thailand already. The products are sold at the prison's annual fairs, and the inmates get some share of the profit. They can also study in the nonformal education system, from primary education up to bachelor's degree level. Some inmates have earned several degrees even though they still have several years left in jail.

My project adds computer skills to their training. I provided computer facilities to four "pilot" jails where various computer lessons have been provided to inmates. They can choose to enroll in courses from basic to advanced computing, computer repair and maintenance, graphic design, and desktop publishing. Such skills have enabled those inmates to earn some money from word processing or graphic design even while in prison.

Aside from learning basic computing skills, a group of female inmates at the Central Correctional Facility were trained in the skills needed to produce a multimedia book called *DAISY* (Digital Accessible Information System), developed for persons who have reading impairments, such as the blind. The project is a collaborative effort between my ICT project, the Thai Association of the Blind, and the Central Women's Correctional Facility. I provided funding to provide six sets of computers

for the Central Women's Correctional Facility. Individuals from Japan kindly came to provide training on *DAISY* book production for inmates.

The Thai Association of the Blind has hired the inmates trained in the program to convert a number of popular books into *DAISY* books for the library collection of the association. Members of the library can check out these books for personal use. This project not only helps make good books available for people with disabilities, but it has also enhanced the self-esteem of the inmates resulting in their feeling good and proud about themselves (Sirindhorn 2004).

1.5.8 Education for the Gifted and the Talented

1.5.8.1 Science Schools for the Gifted

Most of my work has been to help average children and disadvantaged groups such as the disabled, prison inmates, and those in remote areas. But I think education of the gifted and the talented is also particularly important for the future of our country. They can be a "disadvantaged" group in regular schools, as they learn faster than the pace with which their teachers can cope, and educational resources of regular schools may not be sufficient to meet their high capacity for learning, which can lead to their serious frustration.

So in 1991, I supported Mahidol University and the Ministry of Education to establish the first science high school in Thailand, Mahidol Wittayanusorn School. The school became autonomous in management by a special law in the year 2000. It admits 240 highly gifted students, both boys and girls, from all over the country each year. It is a boarding school and every student receives a full government scholarship.

Although the goal is to produce capable researchers in science and technology for the future, I urge that the students also be trained well in subjects like arts, culture, social sciences, and humanities. Besides Thai, they are required to study English and one other language such as Chinese, Japanese, Vietnamese, Russian, German, or French. They engage in sports, school service, and community service. I think gifted students should be trained in a holistic way to be compassionate individuals dedicated to working for the common good.

At present the school is helping 12 Chulabhorn Rajavidhayalai Science Schools located in 12 provinces to develop their gifted programs in mathematics and science. Mahidol Wittayanusorn School's curriculum, teaching methodology, learning process, and management system are available for other schools to study and apply to their schools to improve education. The process of gifted education is, therefore, an important strategy to improve schools at large.

1.5.8.2 Gifted and Talented Program in the Arts

Another example of the programs for the gifted and talented is the project I have initiated to produce a number of top researchers in languages and arts. This is a scholarship program for high school students selected on the basis of their talents in any area(s) of arts and languages. It involves cooperation between the prestigious Triam Udom Suksa High School in Bangkok and the Faculty of Arts, Chulalongkorn University. About ten students per year receive scholarships to study arts programs from the high school to Ph.D. levels.

1.5.8.3 International Olympiads and Other Competitions

The academic Olympiads and other national/international competitions serve as a means to stimulate the schools to improve the quality of their education. The late Princess Galayani Vadhana, my aunt, founded a special foundation in 2002 to promote the International Mathematics and Science Olympiads. Behind these Olympiads, initiative was her determination to improve science and mathematics teaching and learning in Thai schools. The Olympiads were just a tool to that important end.

At present each year there are almost 3,000 gifted students in secondary schools who are selected to join the mathematics and science camps organized by the leading universities in a concerted action around the country. A by-product of the promotion of the Olympiads promotion has been the production of good science and mathematics textbooks and educational media, teacher development, and cooperation among science and mathematics faculties, as examples. This is the biggest enrichment program for gifted students all over the country. Through preparation for the Olympiads, I have succeeded my aunt in promoting gifted students in science and mathematics and upgrading science education in schools.

There are many other competitions, in which students compete from the local to national and then international levels. The winners receive prestigious awards and high recognition from the public. To cite a few examples, there are competitions of science projects, innovations, inventions, mathematics problem-solving, and robots. These competitions are especially good for identifying students having diverse and exceptional talents. Due to the publicity involved, we are able to generate excellent cooperation and financial support from both governmental and private organizations.

1.5.8.4 International Activities

Since 2002, I have selected two university students each year to attend the Summer Student Program at the DESY Institute or the German Electron Synchrotron Institute in Hamburg, Germany. The students have an opportunity to work on cutting-edge

research with outstanding scientists, especially in the field of particle physics, both theoretical and experimental.

The year 2008 was the first time I sent three graduate students in science to participate in the Lindau Conference at Lindau, Germany, in which many Nobel Laureates gather annually to meet young scientists and gifted students from all over the world. The inspiration the students receive from meeting those outstanding scientists is very important for them in pursuing research careers with pride and confidence in the future.

Another example is a project for high school students and physics teachers to go to the European Organization for Nuclear Research (CERN) in Geneva, to attend CERN summer programs. This program has been taking place annually since 2009. We also collaborate in research on particle physics.

Two more examples are activities at GYSS and LLNL. Each year since 2013, five young Thai researchers and students participate in the international conference called GYSS or Global Young Scientists Summit sponsored by the government of Singapore, and from 2014 to 2016, two high school physics teachers are selected to join special training at Lawrence Livermore National Laboratory (LLNL) in the USA.

These are examples of international cooperation to provide opportunities for talented Thai students to collaborate with similar students abroad and to learn from leading scientists of the world.

1.5.9 Science, Technology, and ICT in Education

1.5.9.1 Science and Technology and ICT in Rural Schools

Science and technology, including ICT, are extremely important tools for educational development (Sirindhorn 2006). About 15 years ago, I initiated a project called “Science in Rural Schools” to improve science in such remote schools. Currently young people in these schools enjoy working on their innovative and creative science projects related to problems in their localities. They can produce good scientific work. So, I have no doubt that it is possible to build up scientific and technological capacities if we provide good science education related to local content and contexts. The students who engaged in these science projects are good at presenting their works in science exhibitions and conferences where they can meet with other young people around the country. Some can also even exhibit their work abroad.

I am happy to see good progress in many rural schools. Quite a few teachers and students have received various awards in science and ICT competitions at provincial, regional, and national levels each year. Also, we have seen more graduates from our schools studying in science and ICT programs in the universities. A student from one of our schools won a medal in an Olympiad. For those who cannot get into the universities, their ICT skills can still help them to find good jobs. Those

who have had opportunities to go to the universities have become professionals in various fields.

1.5.9.2 Educational Websites for Schools

In 1996, when Thailand celebrated the 50th anniversary (Golden Jubilee) of the accession to the throne of His Majesty King Bhumibol Adulyadej, the Kanchanapisek website was created. This website has two parts: the first is about the biography and the works of His Majesty King Bhumibol Adulyadej, and the second is aimed at distributing knowledge of various fields to all Thais, especially children and youth.

Two years later, the project initiated the SchoolNet to link the website directly with the schools. Later on this became the SchoolNet system of the Ministry of Education connecting the websites of all member schools. This creates the biggest educational network among Thai schools. Not only students and teachers can access those websites, but everyone can also learn from them.

We are in the process of creating, collecting, and organizing digital educational programs in a systematic and user-friendly way for each level of education and making them available online or offline. In the near future, teaching and learning of every lesson, especially those of difficult topics or the subjects that lack adequate numbers of qualified teachers such as science or mathematics, can be easily accessed online from the Kanchanapisek website and others in the network.

1.5.9.3 ICT Center and E-Library

The rural schools equipped with computers and the Internet can become village ICT centers. Each school can provide service to local people when they wish to be trained or to obtain some information related to modern agricultural practices or to seek markets for their local products. We can provide a conventional, e-library, or digital library.

Through these facilities, the government agencies can reach the people no matter how remote they are. Local citizens can also obtain good knowledge related to food, health, agriculture, and labor wherever they live.

1.5.9.4 Education for E-Commerce/E-Business

Another important initiative is to train students and villagers how to plan their own e-commerce and e-companies, once they have access to ICT. One example I have seen was in a small rural village with many malnutrition problems, where I had worked on the problems before. I had not been back to the area for a long time, and when I did return, I learned that the women's group which sold handicrafts was using e-commerce to sell their products to neighboring countries. Before, if people have higher education, they would not be able to return home, because there were

Fig. 1.3 IT for teacher training (Photo courtesy of Her Royal Highness Princess Maha Chakri Sirindhorn's Personal Affairs Division)



no jobs for them in the rural environment. With the help of ICT, they can now use their knowledge to create their own small and medium-sized enterprises (SMEs) and develop innovative businesses in local areas.

1.5.9.5 ICT for Distance Education

Another project is the interactive ICT for distance education. We can use this system to provide improved access to higher levels of education. Where ICT is not available, we can still use the old methods of distance education, like satellite TV, radio, tape recordings, diskettes, CDs, newspapers, or even regular mail. All these methods have been used in my projects (Sirindhorn 2008). Many teachers, both monks and lay persons, have obtained bachelor's degrees and master's degrees by distance education.

1.5.9.6 ICT for Databases

Databases are necessary in the information and knowledge age, and ICT is particularly useful to create and maintain good databases. We have been quite successful with plant genetic resources or germplasm databases, linking genetic resources of agencies in the country and, later on, to the botanical gardens of various schools. The Kanchanapisek website and SchoolNet are also valuable educational databases.

However, the databases are meaningless if they are not actively used. I am deeply concerned about the issue of information literacy. We may be successful in creating databases and providing the schools with modern ICT equipment, but if teachers and students do not use them effectively, it is a waste of time and money (see Fig. 1.3).

Another major issue relates to language proficiency. To be able to use data and information more effectively, teachers and students have to be proficient in lan-

guages, especially their native language and English. They are the tools to search and to make use of information in the databases.

1.5.10 Libraries

One of the most important infrastructures of education are libraries. Even though we may have ICT available to facilitate searches for knowledge and information, I think hard copies of books are still exceedingly important. H.R.H. Prince Damrong Rajanuphap played an instrumental role in creating the National Library of Thailand.

I am an advisor for the *Thai Encyclopaedia for Children and Youth Project*, initiated in 1978, according to His Majesty King Bhumibol Adulyadej's wishes. We have provided schools with hard copies of this important encyclopedia. As of 2010, 35 volumes and 2.4 million copies have been published. According to His Majesty King Bhumibol Adulyadej, the encyclopedia should be written clearly and divided into three levels of difficulty for three different age groups. The encyclopedia is a valuable source of information for children to learn by themselves. It also gives them the idea that all subjects are interrelated. This important project was ably directed by Professor Khunyng Maenmas Chavalit, former director of the National Library of Thailand.

I think good books are important for successful education. The late Dr. Kowit Varapipatana, "the father of nonformal education in Thailand," promoted village reading centers (see Chap. 8). In 1972, M.L. Manich Jumsai initiated the Annual Book Fair, which has now become a major event, attracting thousands of visitors. We also have developed several Thailand Knowledge Parks (TK Parks) which creatively integrate both electronic learning and the actual use of books and magazines.

1.5.11 Education for Women

My grandmother, H.R.H. Princess Srinagarindra, was among the first Thai women to have had a chance to study abroad. She was among very few ladies who earned a scholarship to study nursing in the USA, and later on she played an important role in nursing education in Thailand.

Since then more and more women have gone to school and later on had highly successful careers (NCWA 1993). Currently we can say that there are no significant gender differences in educational opportunity in Thailand. In the past there were a few disciplines, such as engineering and medicine, dominated by males. At present such gaps have been narrowed and now in many fields women dominate. However, there are still certain professions in which gender plays some role. For example, forest rangers and airline pilots are mostly men, while nurses are still mostly women.

This is true not only in Thailand but across the globe and is explained by the theory of segmented labor markets (Piore 1972; Reich 2008).

1.5.12 Education of the Armed Forces

I was a faculty member of the History Department, Academic Division of the Chulachomkhalao Royal Military Academy, from 1980 to 2015 (my retirement year). I have been directly involved in the education of the Thai Armed Forces for many years. In my opinion, soldiers, like civilians, should study to be well-rounded. Besides the military subjects, they should have good concepts and knowledge of history, civilization, science, engineering, and technology. They too should learn how to learn and how to adapt themselves in their careers in a rapidly changing world.

1.5.13 Language Education

The foundation of education is the ability to read, write, and communicate well. So language education is the first and the foremost important subject. Presently we need to study more than one language, especially English. In the current rapidly globalizing intercultural era and regionally the start of the ASEAN Economic Community, educated Thais should be knowledgeable of at least one Western language such as English and at least one Asian language such as Chinese or Vietnamese. It is the knowledge of languages which opens up access to vast amounts of information. Those who lack a command of languages deprive themselves of access to much valuable information and opportunities.

1.6 International Schools and Bilingual Programs

The number of international schools in Thailand increased from 91 schools in 2004 to 108 schools in 2007 to 139 in 2013 and now 176 (see Chap. 11) (ISAT 2017). Among these, 106 are located in Bangkok. With the inception of the AEC at the end of 2015, the international school market is expected to strengthen further. They are all private schools, and fees and tuitions are generally much higher than those of other public and private schools, where the instruction is mainly in Thai. International schools in Thailand are regarded as high-quality schools. Due to their high costs, the schools are usually limited to families of higher socioeconomic status.

A number of Thai schools, both private and public, have developed special curricula called English or bilingual program for students who have chosen to enroll in and are qualified for this kind of program in which the instruction is totally or mostly

in English, while the schools' regular program is taught in Thai for the majority of students. Special programs like this usually cost more, and the students have to bear the extra cost. In the past, there had been Chinese schools in Thailand, using Chinese language as the means of instruction. The schools were prohibited for a while. Now there are Chinese schools teaching in Chinese, Thai, and English. They are increasingly popular as Chinese economic influence increases globally and regionally.

The high demand for quality education as seen in the popularity of international schools and international education is an issue that Thai educators should consider seriously in the age of free trade of any commodities or services including education in the new AEC era.

1.7 Education in the Globalized World: Benchmarking Issues

As the world becomes borderless, benchmarking and standardization are inevitable. We should not develop education without looking comparatively at what happens in other countries. International benchmarking tools like the Scientific Olympiads, the TIMSS tests, the PISA tests, and the IMD's annual study of competitiveness may inspire participating countries to improve their efforts.

Thailand in 2011 participated in the international testing known as TIMSS (Trends in International Mathematics and Science Studies) organized by the International Education Association (IEA). From the results for 2011 in mathematics and science (4th and 8th grades), the performance of Thai students was substantially below the international average at the 4th grade level but actually slightly higher than the international average at the 8th grade level and higher than Germany, France, the USA, and Norway (Mullis et al. 2012; Martin et al. 2012; TIMSS 2011).

Thailand has been cooperating with IEA for decades dating back to the vision of Dr. Chancha Suvannathat, who played a major leadership role in developing the International Institute for Child Study at Srinakharinwirot University (in collaboration with UNESCO).

Thailand has also participated in the PISA international examinations since the first survey in the year 2000. PISA stands for Programme for International Student Assessment. It is a program of OECD (the Organisation for Economic Co-operation and Development) to assess students in science literacy, competency in mathematics, proficiency in reading, and problem-solving. The testing is done every 3 years.

For example, the latest PISA 2015 focused on assessing the four areas just mentioned. The 34 OECD member countries and 38 partner countries and economies participated in PISA 2015. The results came from testing samples of approximately 540,000 students between the ages of 15 years 3 months and 16 years 2 months in the countries and partner countries and economies completing the assessment in 2015, representing about 29 million 15-year-olds in the schools of the 72 participating countries and economies. The OECD average was 492 points, and the Southeast

Asian nation, Singapore, had the highest overall average score among the countries where students are tested (OECD 2016). Though Thailand is not an OECD country, we have participated in these assessments. In the most recent 2015 tests, Thailand's scores were below the average OECD scores. Analyzing Thailand's performance, some schools could score as high as the highest scoring groups of the 72 countries, while others had very low scores, thus bringing the average down. We need to analyze these results in detail to pinpoint the weaknesses and the reasons behind them. Interestingly, the reading test results followed a similar pattern to science and mathematics, indicating that the competencies in these three subjects are highly correlated. Chapter 6 of this book provides a more detailed analysis of the latest PISA results for Thailand.

In the 2015 International Institute for Management Development (IMD) report on world competitiveness, among 61 countries, Thailand ranked 30th in the overall competitiveness scores, and the USA ranked first. Among the 13 Asian countries, Thailand ranked 8th in the competitiveness scores (*IMD World Competitiveness Yearbook 2015*). For the talent competitiveness scores, Thailand ranked 34th. The following are the key IMD indicators of education as reported in the *IMD World Talent Report 2014b* by the IMD World Competitiveness Center:

- Total public expenditure on education (%)
- Total public expenditure on education per pupil
- Pupil-teacher ratio (primary education)
- Pupil-teacher ratio (secondary education)
- Apprenticeship
- Employee training
- Female labor force (%)
- Cost-of-living index
- Attracting and retaining talents
- Worker motivation
- Brain drain
- Quality of life
- International high-skilled people
- Labor force growth
- Skilled labor
- Finance skills
- International experience
- Competent senior managers
- Educational system
- Science in schools
- University education
- Management education
- Language skills

We can compare the score of each indicator with that of other countries to get some idea of where we stand. However, there are no fixed universal standards in education. It is amazing how humans can always develop and extend beyond their limits.

We have to encourage students always to try to develop to the next level by competing with their own selves, aiming at breaking their own records, and achieving their full potential.

Benchmarking in education can be effectively done in many domains. However, in some areas education cannot be benchmarked. There are some arenas in which differences are not an issue. Thai students, for example, are among the happiest in the world (UNESCO 2014). Education should promote diversity as well as high achievement.

1.8 Social Enterprises and Social Entrepreneurs

In the twenty-first century, we are facing many new dilemmas, threats, and hardships at both local and global levels such as climate change, pervasive and growing inequalities, an energy crisis, clean water shortages, violent disasters, and dangerous new diseases (e.g., Ebola). Despite this highly competitive atmosphere, it is inevitable that everyone must learn to become more socially responsible, to care more, and to share more. Social enterprises will become increasingly important as group's goals make more sense than selfish individual undertakings. Businesses have to demonstrate more social responsibility and invest more in intangible domains and nonprofit entities focusing on cultural preservation, education, human security, social welfare, and local wisdom.

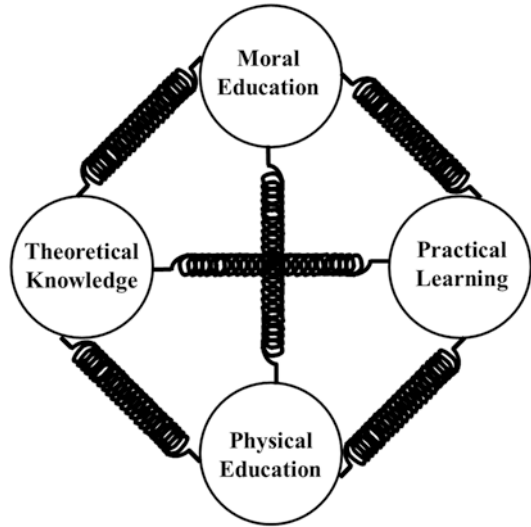
Young generations have to learn about social enterprises and to know how to balance them with other for-profit entities. Bringing *young people together from all over the world to live and to learn* together, to appreciate differences as much as similarities, and to think about necessary social enterprises in the global village of their time should be the trend of education in the twenty-first century.

1.9 Concluding Reflections

As seen in the description of my various educational initiatives, my own work has been concentrated on nutrition and education for people in the remote and disadvantaged areas. Without these first steps, any sophisticated development idea is useless. Currently we regard education as the important tool for the people to improve their socioeconomic conditions, and in turn, they can help develop the country. Education for development has many purposes and ideals:

- Education enables the person to read and write, to acquire more knowledge, and to communicate better with others.
- Education provides vocational training for a person to have better vocational or professional skills to improve the person's well-being.
- Education makes a human a good and mindful person who values human dignity and does the right things.

Fig. 1.4 Tetrahedron model of Thai traditional holistic education



- Education makes a person a responsible well-disciplined member of the society, who lives by the society's laws and regulations and contributes to the society.
- Education makes peace the only choice when a person encounters conflicts in life and in the society.
- Education grows awareness and caring in a person about the environment and natural resources.

In conclusion, education is a unique process of mankind. Everyone says that education is very important, but in practice, there are usually more urgent issues and priorities. The fact is that children cannot wait. Their formative years are quite short. In my work, I often emphasize the four domains of traditional Thai education, namely, *phuthisueksa* (พุทธศึกษา) (theoretical knowledge), *hathasueksa* (หัตถศึกษา) (practical learning), *chariyasueksa* (จริยศึกษา) (moral education), and *phalasueksa* (พลศึกษา) (physical education) (see Fig. 1.4). Teaching and learning based on all four domains will make education complete and help develop the whole individual.

Lastly, as educators, we should expect the following outcomes from our work:

- Education fulfills curiosity and creates even more curiosity. The great Chinese philosopher, Lin Yutang (1955), stated that we must never lose the heart of the child.
- Education should make a person a capable, productive, and responsible citizen.
- Education is for understanding and caring for oneself and other beings.
- Education brings people together to create and innovate for the betterment of mankind.
- Education is to love nature and to promote peace.

In short, education should make the human a better person and the earth a better place to live.

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Chapter 2

The Thai Context: Historical, Cultural, Demographic, Geographic, Economic, and Political



Gerald W. Fry

Abstract To understand contemporary Thai education, it is critically important to become familiar with Thailand's historical, cultural, demographic, geographic, economic, and political context. The three pillars of Thailand are nation, religion, and king. Thailand has a long history dating back to the establishment of the first Tai Sukhothai kingdom back in 1238, eight centuries ago. During that kingdom a unique writing script was developed in 1283, drawing upon Indic traditions. In 1932, Siam in a peaceful revolution was transformed from an absolute into a constitutional monarchy (Charnvit 2004). Since 1932, political impermanence (Pridi 1970) has characterized Thailand with frequent changes back and forth from civilian to military governments, but political stability has been provided by a highly respected monarchy and a well-educated stable bureaucracy. Thailand is exceptional in numerous ways such as never have been colonized and pursuing bamboo diplomacy to survive in times of conflict and external threats. Culturally and linguistically Thailand has great diversity with over 70 languages spoken (Chap. 15). There are five major regions of Thailand, each with distinctive characteristics. Throughout its history, Thailand has shown great resiliency. Current major challenges relate to the kind of government which will be established after the next election. To escape the middle-income trap, it is imperative that the new government and monarch give priority to improving the quality of education, investing in human resource development, and significantly increasing strategic R & D (see Chap. 16).

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2.1 Background

To understand contemporary Thai education, it is critically important to become familiar with Thailand's historical, cultural, demographic, geographic, and political context. The three pillars of Thailand are nation, religion, and king.

Thailand has an extremely long history dating back to prehistoric times. Archaeological research in recent decades indicates that relatively advanced peoples were living in this area several thousand years ago. Buddhist influence came into the region in the early part of this millennium. There have been five major Thai kingdoms: Sukhothai (1238–1438), Lan Na (1259–1774), Ayutthaya (1351–1767), Thonburi (1768–1782), and the current Bangkok (Chakri Dynasty, 1782–present). Thailand's literate culture dates back to the Sukhothai kingdom. Thus, roughly from the period 1238 until the present, members of the royal court, their descendants, learned monks, and skilled ordinary Thais (e.g., the poet Sunthorn Phu) have produced a vast array of civilizational and cultural treasures including art, architecture, music/dance, and literature with unique and attractive aesthetic qualities.

In the later part of the nineteenth century, King Chulalongkorn the Great provided dynamic leadership for a modernization program and related reforms that contributed to the development of a powerful, centralized state and a Siamese national identity. He also orchestrated Thailand's first education reform, creating a new national secular educational system (Wyatt 1969). Both King Chulalongkorn and his father, King Mongkut, demonstrated exceptional diplomatic skills in enabling Siam to be the only country in Southeast Asia to avoid being colonized. Also as the result of the strategic use of "bamboo diplomacy" with Prime Minister Pibulsonggram (siding with Japan) and Regent Pridi Banomyong (siding with the Allies), Thailand suffered the least of any country in the region during World War II.

In the postwar period, Thailand actively pursued a dynamic development path. In the more than six decades since the war, there has been a fundamental transformation of the economy primarily in terms of modernity, diversification, and internationalization. Unfortunately, political and social development have lagged behind economic development (Jacobs 1971). Democratic development has been a kind of roller coaster with many ups (the 1997 Constitution and a politically engaged more cosmopolitan population) and downs (many successful military coups that overturned democratic civilian governments perceived as weak and/or corrupt, the latest having occurred in May 2014). Thai politics has also been like theater with many players coming on and off the stage, while the monarchy and well-educated bureaucracy have been pillars of strength and stability. Many nagging social problems such as drug abuse, corruption, and prostitution persist. Also for the most part, Thailand has not experienced green development but instead has been to use James Fahn's (2008) powerful metaphor, "a land on fire" with considerable environmental degradation and hyperurbanization/pollution in the Bangkok area.

Despite such mixed development patterns, overall there has been impressive success. There has been a dramatic expansion in education at all levels. In many ways, Thailand has transcended the digital divide, even with many remote rural areas now

having good access to high speed Internet services. Bangkok now ranks number one in the world in terms of percentage of the population on Facebook. Thai women have excelled in many arenas, particularly as creative entrepreneurs, civil servants, and scholars/intellectuals (Grant Thornton 2016; Lambertson et al. 1993). Thailand has graduated to become a middle-income country now providing aid and technical assistance to many other less developed countries around the world. Thai products such as Red Bull have penetrated global markets, and Thailand is developing many special strong competitive niches in areas such as food exports (“Kitchen of the World”); meetings, incentives, conventions, and exhibitions (MICE); tourism (including medical); gem-cutting; production of hard disks; and the manufacture of automobiles (“Detroit of the East”).

Bangkok (sometimes called the “Big Mango”) has become one of the world’s most vibrant dynamic cities as a political, cultural, communications, intellectual, business, education, and entertainment center (Bussakorn 2011). It is also a major international hub hosting many key regional offices of organizations such as the United Nations, Food and Agricultural Organization, United Nations Educational, Scientific and Cultural Organization, and the United Nations Children’s Education Fund. There are also many international schools and colleges, which have been increasing dramatically.

Thailand is becoming a gateway to Southeast Asia and benefits enormously from its central strategic location in both Southeast Asia and Asia itself. Three key elements have contributed to the national unity underlying these successes: a high regard for their late monarch, King Bhumipol the Great; Buddhism, the predominant Thai religion; and self-esteem based on pride in being Thai and feeling strongly that Thailand is exceptional in many ways.

2.2 Land and People

The area of Thailand is slightly smaller than that of France and consists of 513,000 square kilometers. The country has generally good soils and a monsoon climate. Thailand’s suitability for wet-rice agriculture attracted settlers prior to and during the nation’s early history (Ishii 1978). Thailand borders Burma (Myanmar) to the west, Laos to the north and northeast, Cambodia to the east and south of Isan (the Northeast), and Malaysia to the extreme south. Much of the northeastern border is the Mekong River. Most boundaries are the result of treaties imposed on Siam and its neighbors by Great Britain and France in the late nineteenth and early twentieth centuries.

Thailand is the fourth largest country of Southeast Asia with a current population of 68.9 million with considerable ethnic and linguistic diversity (see Chap. 15).

Topography and water drainage divide Thailand into four natural regions (see Chap. 14). The Southern Region consists chiefly of a long peninsula called the Isthmus of Kra, which it shares with Burma to the west. There is a long coastline on the Andaman Sea (Indian Ocean) and also one on the Gulf of Thailand. Thailand has 1,430 islands, contributing to its attractiveness a tourist destination. Trade routes

across the peninsula contributed to the early development of this region. The terrain is chiefly rolling and mountainous. Natural resources include forest products, tin, rubber, oil, and natural gas.

Thailand has a humid tropical climate. Monsoons are an important weather factor. In the summer, warm humid air arrives from the southwest with much rainfall. In November through January, cool dry air arrives from the north and northeast. Normal rainfall amounts to about 150 centimeters annually. The northern, northeastern, and central regions of the country have a tropical savanna climate with marked wet and dry seasons. The arid Northeast has the least rainfall. Of its 19 provinces in 2009, only five had rainfall exceeding 150 centimeters and only one exceeding 200 centimeters. In contrast the South with its proximity to two major seas had eight provinces with rainfall exceeding 200 centimeters with Ranong the highest at 440 centimeters.

Thailand is fortunate to have extensive fertile land, which has been and continues to be utilized for the production of rice, other crops, and fruit trees. Large annual exports of rice have given Thailand the name “rice bowl of Asia” (Ishii 1978). Each year Thailand is normally the world’s number one rice exporter or certainly in the top three. Moreover, Thailand is one of the world’s lowest importers of food.

A large agricultural population has been a source of cheap labor for urban manufacturing and other Thai industries. Thousands of Thai workers are employed abroad as guest workers in the Middle East and elsewhere. Their significant remittances contribute importantly to the Thai economy and balance of payments. In earlier centuries, this huge manpower resource made the state the dominant military power in Southeast Asia. Fish are a basic part of the diet of agricultural villagers. In terms of exports of fish and shrimp, Thailand has become a global seafood powerhouse.

Forests have in the past been a prominent natural resource for villagers. For the central government, historically, forests provided valuable exports chiefly to China and included elephant tusks, spices, gems, precious metals, and other items. During the decades since World War II, forest lands have provided a major place for thousands of farm families to carve out a farm. Since less than 25% of the kingdom’s total land remained in forests, a ban on logging was imposed in 1993.

National censuses have been taken in the nation at 10-year intervals for the past ten decades. The nation’s annual growth rate between 2000 and 2010 was only 0.6%, which is a significant decline from the higher growth rates of previous decades such as 3.5% in the 1960s prior to the introduction of family planning. Census figures also revealed considerable variation in growth rates among the four regions. Bangkok, the national capital, and adjacent provinces are among the fastest-growing areas. Also growing rapidly are Phuket (a popular tourist resort in the south), Rayong (“Detroit of the East” and close to major energy resources in the Gulf of Thailand), and Chon Buri (including the Pattaya/Jomtien resort area).

The word Tai refers to both a language family and persons who speak one or more of the many Tai languages spoken in Thailand and in the larger region (including Laos, Burma, Cambodia, Malaysia, southern China, and Assam, India). A par-

ticular Tai dialect, Siamese, the language spoken in Central Thailand, was the native tongue of a majority of the occupants of the central region of Thailand. They gained power there in 1351, and a Tai kingdom in Ayutthaya was established. Siamese gradually became more widely used, especially in government administration. When compulsory education was instituted in the early twentieth century, Siamese was more widely adopted and gradually replaced other dialects becoming a major force fostering Siamese national identity. Today, the national and official language is called Thai. It is the language used and taught in all Thai schools throughout the kingdom.

2.3 History

David Wyatt (2003) and Chris Baker/Pasuk Pongphaichit (2014) have provided excellent comprehensive histories of Thailand. John Hoskin (2015) has done a valuable richly illustrated history of Thailand (see also Cornwel-Smith 2016).

2.3.1 *Early History*

The origins of the nation of Thailand are shrouded in prehistory. Findings of archaeologists indicate that there were human settlements in Southeast Asia as early as 6000 years ago. Writers of prehistory have indicated the likely migrations for centuries of several ethnic peoples into this lightly settled area from what today is south China. There is now, however, serious debate as to the extent of this early migration from China. These groups inhabiting the area included the Mon, the Khmer, and the Tai. When the earlier kingdom of Funan's power declined, Mon peoples established kingdoms in what is now central Thailand and Cambodia. Visiting missionaries in the eighth century brought Buddhism, which the Mon Dvaravati kingdom adopted. Sanskrit place-names in today's Thailand reflect other enduring Indian influences including the art and literature of the Mon.

Present-day Thai inhabitants are descended from the mix of the early peoples who settled in Southeast Asia including the Mon, the Khmer, local Tai inhabitants who preceded these migrations, and the Chinese migrants of the nineteenth and early twentieth centuries. Meanwhile, on the narrow southern peninsula that constitutes the western border of the Gulf of Thailand, the city-state Tambralinga (Nakhon Si Thammarat today) was settled by Indian immigrants early in the first century CE. They obtained control of the trade routes between India and mainland Southeast Asia across the isthmus. Theravada Buddhism, introduced there by the Mon, was adopted. After a successful conquest, the states of the isthmus were incorporated into the first Tai kingdom at Sukhothai in the thirteenth century.

2.3.2 *Early Kingdoms*

2.3.2.1 Sukhothai (1238–1438)

By the thirteenth century, there were numerous principalities with Tai chiefs throughout the central and southern areas of Southeast Asia. Culturally and politically, these Tai leaders assimilated ideas of organization, administration, and political power from the previous empires of the region that had largely weakened and declined. As a result of successful military conflict with forces of the Angkor empire, a small kingdom named Sukhothai emerged in the central part of mainland Southeast Asia. King Ramkhamhaeng the Great (reigned 1279–1298), its third king, was reputed to be highly successful as a warrior. During his 19-year reign, the Sukhothai kingdom grew to a large size and included principalities that were sometimes fought over with other Tai kingdoms. King Ramkhamhaeng's reign is remembered as one of the first in which the Tai language in written form appeared in 1283. He provided a written record of much of his reign and is credited with the design of the Tai alphabet.

2.3.2.2 An Early Tai Golden Age: Ayutthaya (1351–1767)

Ayutthaya was a famous and powerful kingdom of the Tai-speaking people. Its capital city (Ayutthaya) was situated on the Chao Phraya River in what today is central Thailand. The kingdom was founded in 1351 by U Tong. Within 100 years, Ayutthaya was the strongest power in Southeast Asia.

From the Angkor kingdom, concepts of the role of the monarch were adopted. These included notions of the king as having universal power and being lord of the land. Agriculture, especially wet-rice agriculture, flourished. Any surplus was sold abroad, and Ayutthaya became a major center of economic activity. Contacts with Western nations in the sixteenth and seventeenth centuries focused chiefly on increasing trade.

A major threat to the security of Ayutthaya was the rising power of Burma in the sixteenth to eighteenth centuries. In a 2-year invasion, Burmese forces captured and sacked Ayutthaya in 1767. The inhabitants and their treasures were moved to Burma; the city was destroyed and left in ruins. During more than 400 years of its existence, the kingdom had a succession of 33 rulers. Some of the more famous kings were Ramathibodi I, Borommtrailokanat, Chakraphat, Naresuan the Great, and Narai the Great.

2.3.2.3 Thonburi: The Bangkok Era and Siam—The Rattanakosin Era

King Taksin reigned (1768–1782) in a capital at Thonburi. During this 15-year period, he overcame rivals and made secure the entire territory of the former kingdom of Ayutthaya.

Thong Duang, one of two Tai-speaking army generals who were key to these military successes, ascended the throne after Taksin was deposed and moved the capital to Bangkok on the east bank of the Chao Phraya River to provide better security against any possible Burmese invasions. He reigned as King Yot Fa, but was designated Rama I by a descendant.

King Rama I the Great (reigned 1782–1809) demonstrated a variety of strengths including that of military leader, effective administrator, and creator of language and cultural arts. He also revitalized the Buddhist religion and constructed many new monasteries. He initiated the Chakri Dynasty, which continues in Thailand today.

King Rama II was the second king of the Chakri Dynasty and the son of King Rama I. He was particularly known for his devotion to the arts. He was a brilliant poet, writer, artist (wood carving), and composer. He is known as the “poet king.” During his 16 years on the throne, Siam enjoyed peace and prosperity. His reign has been described as the Golden Age of Thai.

King Rama III (1824–1851) also ascended the throne in a peaceful manner, a pattern that continued throughout the Chakri Dynasty. Coping with Western interests in Southeast Asia became an important concern of the kingdom during his reign. The treaty signed in 1826 with Great Britain dealt with national boundaries and trade. This began a constructive pattern for future kingdom relations with the West. The agreement resulted in a considerable increase in trade. The many Western ships arriving annually at Bangkok brought increased contacts with the West. During his reign the kingdom was the largest in history in terms of area controlled and included most of what is now Laos.

Mongkut became King Rama IV (1851–1868) of the Chakri Dynasty after 27 years as a Buddhist monk. While in the monastery, he found expression for his brilliant mind and great curiosity. He learned many other languages, read extensively, and gained knowledge of Western societies. King Mongkut handled negotiations with visiting diplomats from European nations effectively, compromising when necessary to preserve the kingdom’s independence from the grasp of colonialism. It was in the Burney treaty of 1856 that the name Siam began to be used instead of Bangkok Kingdom.

King Chulalongkorn the Great, Rama V (reigned 1868–1910), one of two former kings of Siam whose memory is honored in a celebration that occurs annually (on 23 October). When well into his reign in the mid-1880s, Chulalongkorn launched a major plan of government reform with increased royal power. He was known as a great reformer. Education reform was one of his major initiatives resulting in a centralized national secular educational system (Wuttichai 2011; Wyatt 1969). Sukanya (2000) provides an interesting comparison of the reforms of King Rama V with those of Japan during the same modernization period. The accomplishment of his goals was gradual but complete by the early twentieth century, when a new governmental administration was established throughout the kingdom. In the face of threats of colonization by Great Britain and France, King Chulalongkorn through astute diplomacy succeeded in maintaining the independence of the kingdom. This monarch also traveled widely including two major trips to Europe where he learned

about Western educational systems (Charit 2000). He also traveled widely in Asia (Lim 2009).

King Vajiravudh or Rama VI (reigned 1910–1925) created a quasi-military organization, the Wild Tigers, which gave him special personal support and helped increase a sense of Siamese nationalism. King Vajiravudh saw national identity and defense as important aspects of the Siamese kingdom to promote. He also actively supported the development of the arts, sports, and scouting (Vella and Vella 1978). In 1921 he led the enactment of a law instituting compulsory education in the primary grades. The prominent and prestigious Vajiravudh College is named after King Rama VI. Desired new treaties with European and other powers were negotiated in the mid-1920s under his rule with the aid of an American international advisor, Francis Sayre. The onerous inequalities imposed previously by these external powers were removed.

King Prajadipok, Rama VII (reigned 1925–1935), came to the throne when the monarchy was declining in esteem. Political activities in Bangkok were on the rise. Young men with advanced degrees from the West were openly discussing political topics including criticism of monarchical rule. A peaceful revolution in 1932 by military personnel and civilian leaders changed the Siamese monarchy from an absolute to a constitutional one (Charnvit 2004). King Prajadipok abdicated in 1935, the only Siamese king ever to do so.

King Bhumibol Adulyadej the Great, Rama IX (reign began in 1946), became king after the unexpected death of his young elder brother, Ananda, the previous king, Rama VIII. During the first 4 years of his reign, he completed studies in Switzerland. Returning to Thailand, he was formally coronated in 1950. Through his committed efforts, especially to visit personally all districts of the kingdom (almost 900), the monarchy of the kingdom has gained an extremely high status. King Bhumibol was held in high esteem by the Thai people. He passed away on October 13, 2016, at age 88, being the longest reigning monarch in the world.

2.3.3 *Constitutional Era*

2.3.3.1 *Military Ascendance*

A successful and peaceful coup d'état in 1932, led by civilians and army officers, changed the Siamese monarchy from an absolute to a constitutional one. The promoters of this significant event had been educated in Europe where they had learned about democratic systems and institutions. During the period 1932–1988 (except for brief periods such as 1973–1976), the prevailing pattern was government by military officer cliques led by an army general. Cohesion within the army as an organization and its premier role as guardian of the nation contributed to its ascendancy. A constitution and a national assembly were two elements begun by the 1932 coup promoters that were continued in most successive national governments.

The two regimes of Plaek Pibulsonggram (1938–1944) and (1948–1957) left a powerful mark on Thai history. His dismissal of the parliament in 1938 signaled the return of absolute power, this time by the army. Measures introduced by the Pibul regime included increased government control of the economy and society at the expense of the Chinese who were dominant in business activities. In 1939 Pibul arranged the change in the country's name from Siam to Thailand. He also promoted the nationalist idea of a Greater Thailand (including Tai peoples in neighboring countries) as part of his pan-Thai vision. Education was to be developed to foster both modernization and cultural preservation. The latter principle was part of Prime Minister Pibul's *rattaniyom* (รัฏฐินิยม) policy (12 cultural mandates), which emphasized Thai nationalism and the development of Thai identity. Luang Wichit Watakan played a major role in promoting this Thai national identity and sense of pride in being Thai (Barmé 1993).

During the 1941–1944 Japanese occupation of Thailand in World War II, the West considered Pibul a Japanese ally. His regime ended in 1944 when it appeared that Japan was losing the war. Pibul's second term as prime minister (1948–1957) was made possible by a 1947 coup and absolute army control after a 4-year period of civilian regimes. In the late 1940s and in the 1950s, as Thailand faced a threat of communism, Pibul forged a military alliance with the United States that brought the kingdom significant military assistance. In exchange, Thailand permitted the United States to develop and then use Thai military bases there for a later air war against North Vietnam, Laos, and Cambodia. Military and other US aid to Thailand during the 1950s and 1960s totaled about US\$2 billion. Pibul initiated a pattern of shared power with the administrative bureaucracy that facilitated effective rule of the kingdom. Under his leadership, Thailand became the regional center for many key United Nations agencies. He also established numerous technocratic agencies such as the precursor of the National Economic and Social Development Board (NESDB) and many state enterprises.

Field Marshal Sarit Thanarat was next in seizing power by a military coup and became prime minister in 1958. Building on what Pibul had started, Sarit established numerous agencies such as the National Education Council (NEC) in 1959 with capable technicians to implement economic and education development plans (Thak 2007). In 1959 he also established the National Research Council of Thailand (NRCT). His regime was followed by that of General Thanom Kittakachorn when Sarit died in 1963. Both were authoritarian administrators, and dissent was suppressed. Radio and television were used to rationalize and strengthen military dominance.

For the past five decades starting in the 1960s, Thailand had been undergoing marked change. The Thanom government was confronted by rapid population growth, gradual industrialization, better educated youth, an emerging middle class, insurgency in the countryside, and the spread of Western democratic ideals. A massive student uprising in 1973, which was joined by urban residents and key army units led by General Kris Sivara, ended the Thanom military regime. King Bhumibol Adulyadej sided with people power asking the three military generals to leave the country. He took the lead in restoring order and appointed a new civilian

prime minister. Businessmen in Bangkok city welcomed this fall of military power and actively participated in a return of parliamentary rule in 1974.

However, three subsequent short-lived democratic governments (1973–1976) were ended by a brutal army coup in October 1976. The regimes of General Kriangsak Chomanan (1977–1980) and General Prem Tinsulanonda (1980–1988), however, responded effectively to the pressure in Thai society for a more democratic system. Members of the parliament cooperated with Prem in securing desired legislation, another step toward Thai democracy. Both competent technocrats and members of the parliament were included in his Council of Ministers. The many refugees flooding in from Laos and Cambodia were problems faced by Prem and his government.

2.3.3.2 Toward Democracy

The relatively short regime of Chatchai Choonhavan (1988–1991) as prime minister was unique in two respects. First, he was the first prime minister who was an elected MP since 1976. His appointed cabinet consisted mostly of businessmen members of parliament instead of mainly military officers or bureaucrats. Second, it revealed the growing influence of provincial businessmen politicians and economic development in the provinces. Later, some provincial politicians such as Banharn Silpa-Archa became national party leaders and even prime minister. Their power developed through patronage politics. To a large extent, this change reflected globalization of the Thai economy and its rapid growth. Also cuts in the military budget reflected the weakened military role in Thai politics.

During the Chatichai rule, Thailand had one of the world's fastest-growing economies. Thus, the February 1991 military coup ("Saturday Surprise Coup") that removed him from power was largely unanticipated. This move to restore military control and power was led by General Suchinda Kraprayoon, and in the following year, he became prime minister. Suchinda's ascendancy was opposed in massive street demonstrations with leaders from the growing middle class. In the ensuing confrontation ("Black May"), army troops killed or injured numerous persons. King Bhumipol again played a crucial role in ending the crisis, and General Suchinda and his short-lived government resigned.

During 1991–2001, there were seven different Thai national governments. Three of these (Banharn Silpa-archa, Chavalit Yongchaiyudh, and Dr. Thaksin Shinawatra) came to power through strong electoral support from the rural areas of Thailand with allegations of significant vote buying. Several regimes collapsed (Chuan Leekpai, Banharn Silpa-archa, Chavalit Yongchaiyudh) by pressure from Bangkok business interests and middle-class activists who brought charges of regime corruption and lack of decisive leadership to deal with serious national problems. Urgent needs during this period included decentralization of the government, urban traffic congestion, farmer protests, and the severe Asian economic crisis of 1997–1998.

There were two coalition regimes in which Chuan Leekpai (Democrat Party) was the prime minister (1992–1995 and 1997–2001), with strong support from voters in

Bangkok and in the South. Both followed elections in which 12 or more political parties participated. In the second, businessmen held the important ministries, since Chuan and his party had reorganized to include both Bangkok and provincial business interests. In 1997, his administration attempted to implement the financial and political reform measures that accompanied the economic recovery loans from the International Monetary Fund (IMF) and the World Bank. Amendments to the constitution were passed by the parliament, which lowered the voting age from 20 to 18, affirmed the equality of women, and prohibited members of the cabinet and National Assembly from holding monopolistic concessions with government or state bodies. Chuan's administrations were confronted by demonstrating farmer groups numbering in the thousands. From a semipermanent encampment near the government administrative offices, they militated effectively and obtained policy changes regarding the rights and financial needs of farmers.

The new constitution (the most democratic in Thai history) enacted by parliament in August 1997 embodied significant political reforms (Foreign Law Division 1997; Klein 1998). It was the crowning achievement of an effort by a broad spectrum of reform groups. Three new commissions were created, one each for fair and clean elections, a constitutional court, and to counter corruption. Together with subsequent legislation, passage of this constitution made Thailand a more open and democratic society. Also this progressive constitution called for 12 years of free education and 9 years of compulsory education, and it mandated education reform and decentralization. This resulted in the passage of the National Education Act (NEA) in 1999.

A decade of change that preceded the adoption of the 1997 constitution was marked by wide participation of new social groupings in public affairs with ongoing discussions about political and constitutional reform. The Thai media provided assistance to the urban activists seeking public support in favor of political reform.

Elections for the National Assembly were held in 2000 and 2001, the first to be organized and monitored by the new election commission. The 2000 Senate election seated 200 members, while the House of Representatives election in 2001 seated 500 members. The January 2001 election for the House of Representatives brought to power a new prime minister, Dr. Thaksin Shinawatra, head of the Thai Rak Thai Party (TRT) and a highly successful telecommunications tycoon. He attracted the votes of numerous rural residents, particularly from the Northeast and North. He himself is from Chiang Mai in the north. Dr. Thaksin barely survived when he was tried in the Constitutional Court (8–7 vote) for allegedly misreporting his total financial assets as is required of elected officials. His rise to power was aided by his image as a successful businessman even though he used influence to obtain business concessions from politicians in government. His election also demonstrated the increased role of business in the Thai political power structure.

His populist policies included health care of any type for a nominal fee of 30 baht (about \$1), debt relief for villagers, and distribution of special funds to every village. In 2005 Dr. Thaksin ran again under the banner of the TRT. Based on his highly popular populist programs and his leading Thailand to continued solid economic recovery from the Asian economic crisis, he won the majority of seats in

parliament as a sole party for the first time in Thai political history. He was also seen by many as a decisive visionary leader. However, after the election an active anti-Thaksin movement emerged led by a group called the Popular Alliance for Democracy (PAD), who came to be known as yellow shirts which they wore to show their support for the monarchy.

Dr. Thaksin became a highly polarizing figure with most Thais loving or hating him. Those who hated him did so for multiple reasons. They saw him as undermining democracy, using draconian measures to stop the Thai drug trade and to deal with problems in the Muslim south, and as using his political power to enhance his family's financial empire. In February, 2006, he sold one key company (Shin) in his telecommunications conglomerate to Singapore for a huge profit and without paying any capital gains taxes. Also in May, articles appeared in an influential Thai magazine claiming that Dr. Thaksin had a "Finland Plan" that would transform Thailand eventually into a republic. All these complaints combined provided the rationale for a controversial military coup that ousted Dr. Thaksin from power in September 2006, while he was attending a UN meeting in New York.

An interim government termed "old ginger" because of the presence of many senior former bureaucrats was installed by the military. In May 2007, the Thai Rak Thai Party of Dr. Thaksin was abolished by the Constitutional Court, and 111 of its executives banned from politics for 5 years. Dr. Thaksin himself went into exile faced with serious corruption charges. In new elections held at the end of 2007, the People's Power Party (PPP), which replaced Thai Rak Thai and was supported by Dr. Thaksin, was victorious and formed a new government. This led to increased polarization and considerable civil disobedience in 2008 by the PAD (yellow shirts) including their embarrassingly taking over both Government House and the Suwannaphum International Airport.

Eventually at the end of 2008, a political faction that had previously supported Dr. Thaksin defected from the coalition and shifted their support to the Democrat Party and Abhisit Vejjajiva, enabling him to become Thailand's prime minister. A political group called the United Front for Democracy against Dictatorship (UDD) (known as the red shirts) mobilized against Abhisit. In April/May 2010, the red shirts marched on Bangkok and eventually seized a rich commercial center of Bangkok called Rajprasong. These protestors demanded that parliament be dissolved and new elections held. Finally, on 19 May, the government used force to end the protest. During the 2 months of turbulence, 91–98 individuals died and hundreds were injured. In the aftermath of the crackdown, some angry protestors burned down key buildings in and near the protest zone, and some provincial government offices were hazed as well.

Eventually new elections were held in July 2011, and the Pheu Thai Party (replacing the banned PPP and also supported by Dr. Thaksin) somewhat surprisingly won the election easily with strong support from voters in the Northeast and North. The leader of Pheu Thai Party was none other than the youngest sister of Dr. Thaksin, Yingluck. She became Thailand's first ever female prime minister.

During late 2013 and the first months of 2014, Suthep led major street protests against the regime of Yingluck shutting down major intersections in Bangkok

(Tekueng 2014). After months of protests mostly peaceful but some involving violence, Yingluck herself was removed from office by a judicial coup and shortly thereafter in May 2014, her government was overthrown by a military coup d'état (Fry 2014).

2.4 Economic Development

For the first 500 years of its long history, Thailand's economy was based chiefly on wet-rice agriculture. The great majority of the population were agricultural villagers who were largely self-sufficient in food and other necessities. In these early years, rice and other home grown foods were extracted by the king from the rice growers, which along with high value forest products were essential staples for the monarch, his support staff, and the royal armies. In addition, these products were traded by the royal court for weapons and wealth, providing the king with status and political control. Since the late 1500s, the Royal Thai leadership has utilized trade as a foundation for economic growth. In the early 1800s, China's demand for forest products collapsed, while at the same time, areas in Asia that had been colonized became new markets for rice exports. Rice production was increased in the alluvial plain of the central region and the river valleys in the northern region, beginning Thai commercial rice agriculture. Trade contacts with negotiators from the West in the 1850s marked Thailand's early entry into global export markets. Also Thailand had increasing economic relations with Japan (Swan 1986, 2009).

In 1850, most of Thailand was forested land and the kingdom's population was less than 5 million. The following century saw a continuing deforestation and the creation of farm settlements. The opening and cultivation of new rice lands eventually had the effect of a 25-fold increase in the production of rice. Other commercial farm products increased also. While rice became the main engine of wealth accumulation in the first half of the 1900s, by the 1970s, nearly 70% of Thai farmers were commercial producers. Beginning in 1955, the government set up a rice monopoly that bought the farmers' rice for export sale. The price paid to rice producers was 15–35% below the export price. This was a type of tax revenue obtained from producers of surplus rice that the national government used to finance infrastructure projects for urban industrial development. This tax (known as the rice premium) mechanism represented a transfer of wealth from the producers of surplus rice to the urban economy until it was ended in 1986 (Usher 1977).

In the late 1950s, Thai government leaders began to promote economic growth in the private sector to replace the previous state enterprise approach. Five-year economic plans were developed by economists and technocrats, the first of which was promulgated in 1961. As a result, industrialization advanced in Thailand and major urban banks were influential in allocating credit toward economic growth.

Technocrats became influential in economic policy starting in the 1950s under Pibul and then accelerating during the Sarit regime, reaching its pinnacle with the highly technocratic but efficient Anand cabinets (1991–1992). Together with key

business leaders and bankers, they moved Thailand toward an export-oriented economy. Transnational firms in Thailand, especially Japanese, changed their focus from labor-intensive products and resource-based industries to technology-based products such as auto parts, computer parts, and electronic goods. By 1986, Thailand's greatly diversified export economy had eclipsed the previous ones that were predominantly agrarian. Sino–Thai businessmen were crucial to growth in the economy (Sng and Phimpraphai 2015).

A spectacular economic boom developed in Thailand with four main elements, and Thailand was called “the Fifth Tiger” (Muscat 2015; Pasuk and Baker 1996). First, there was an expansion of existing firms and many new ones which produced goods and services sold to richer industrial countries. Labor for urban industry was adequately supplied by migrants from up-country farms. Second, Thai firms found a niche in globalized business, drawing on and adapting their experience in the home market, and applied that expertise abroad. Third, new sources of capital led to expansion by both Bangkok and provincial businessmen who invested in infrastructure and services that facilitated development. Fourth, economic growth fed greatly increased investment in real estate and financial services in Bangkok and surrounding areas. In addition, consumer goods production expanded in response to the growing incomes of the population. As in earlier times, the huge expansion of industry, population, wealth, financial services, retail services, political power, and amenities has been concentrated in Bangkok and adjacent provinces. Thailand has increasingly become an *unequal nation* (Pasuk and Baker 2016). When compared to the smaller growth in the provinces, an extreme imbalance is revealed. Over time there have been increasing inequalities and regional disparities which contributed significantly to the political polarization since 2006 (see Chaps. 13 and 14).

While an economic slowdown was evident by 1994, the Thai government failed to respond. Four factors stand out. Government expenses exceeded income, there was excessive private sector borrowing from overseas, the Thai currency (the *baht*) became overvalued with its tie to the US dollar, and large amounts of international money entered the kingdom without well-managed controls or regulation. In July 1997, a severe economic crisis struck Thailand when Thailand decided to let its currency the *baht* float in value. Its value dropped dramatically which sent economic shock waves across Asia and eventually across the globe. Finance companies, banks, and corporations suffered large losses from which many did not recover; 56 finance companies were closed. The IMF quickly arranged loans and mandated conditionalities shaping economic policies.

A recovery period began in 1999 has continued to the present. Thai exports are being sent to increasingly diversified international markets and are now again robust. Other impacts of the economic crisis included major international ownership of banks, financial assets, export industries, and retail companies. Further, the Thai economy is more open than ever before; the earlier dominant role of local capitalism has been replaced to a large extent by transnational capitalism. Over time the Thai economy has also dramatically internationalized with the total of exports and imports combined now representing 99% of GDP. Currently as of the end of February 2018, Thailand has the lowest unemployment rate in the world, 1.0% (among 42 economies ranked) (*The Economist* 2018). Annual economic growth is

3.9% meaning that the Thai economy will double in size during the next 18 years. Thailand's foreign exchange reserves on January 1, 2018 were an estimated \$193.5 billion, thirteenth highest in the world, two spots ahead of economic powerhouse, Germany, and its income per income is now \$17,800 (PPP) (estimated) reflecting its middle-income status.

2.5 Social Development

2.5.1 Rural Society

For centuries, the agricultural village has been the center of social life for the people of Thailand. While urban society has been growing for the past century, the village as a social center remains. The village defines one's identity, and each member feels a loyalty to it. Festivals, entertainment, and educational and religious activities take place at the village Buddhist temple grounds, an important community center. Celebrations of Buddhist religious holidays and ceremonies when young men enter the Buddhist monkhood continue to be occasions for social interaction.

Nevertheless, Thai agricultural villages have changed. They no longer have the sameness of earlier centuries. In addition to farming, there may be other economic activities there such as brick and handicrafts making. While villagers formerly cooperated in the planting and harvesting of rice and in many other ways, such events have declined considerably with the growth in the cash economy. Also many villagers have taken jobs in industrial estates established outside Bangkok, often leaving villages primarily inhabited by only younger and older people. Villagers have also begun to participate in the political campaigns of local office seekers.

The movement of many young men and women out of villages in the past four decades to work in the cities and send home remittances to their families has aided in improving the standard of living in rural areas. In addition to providing aid to parents, migrating to the city is seen by young people, especially women, as a way to become up-to-date or modern (*thansamai*) (ทันสมัย). The rural kin group continues to have meaning for its members. Many of those who go to the city may return to the village later to settle down or return temporarily to help with planting and harvesting of rice. That the thousands of Thai agricultural villages can serve as a place of security was demonstrated in 1997–1998 at the time when Thailand experienced a severe economic crisis. Between 1 and 2 million of the unemployed workers in urban industry returned to their home villages.

2.5.2 Urban Society and Women in the Economy

The official 2010 Census of Population indicated that the urban population has shown significant growth since 1990, while the large rural population has declined slightly. Of the kingdom's 77 provinces, 18 had an urban population that was more

than one half of the provincial total. Beyond that, 19 provinces contained at least one large city of 50,000 or more. Rapid economic growth in the 1985–1994 period brought higher living standards. It also created a consumer culture among middle and high income Thais. With high salaries and easy credit, many upper- and middle-class Thais bought a car and a home in the suburbs. As more white-collar workers attained middle-class status, they became more active in politics.

Thailand is still male dominated, but women have made impressive gains. They outnumber men in the government civil service and in the teaching profession. Women are active in nearly all professions and urban careers (see Lambertson et al. 1993; Chonthira and Wejeyewardene 2006). Thai women have one of the highest rates of labor participation in the world. In the 2016 Grant Thornton *International Business Report*, Thai women ranked number four in the world in terms of percent being in business leadership positions.

Television emerged in the 1980s as a main broker of a new Thai consumer culture. Widespread TV viewing of Thai-produced dramas has become a nightly occurrence. The dramas emphasize both popular Thai novels and Thailand's position as an important part of the world. Other urban traits projected in the dramas include prosperity, modernity, individualism, and globalism, which together constitute a unique perspective of the Thai identity. An interesting contrast in worldviews was reported by Thai economist Pasuk Phongpaichit and British scholar Chris Baker (Baker and Pasuk 2014). They pointed to a rural Thai worldview that embraces ideas of “other-oriented” social relationships, a profound religious faith and spiritual life, an inner harmony, and feelings of contentment with life. Three prominent elements of traditional rural life are wet-rice cooperative culture, affluent subsistence, and a custom termed *long kaek* (ลุงแขก). In the latter system, villagers volunteer their labor to help a new couple build a house, for example. These values perhaps partially explain why Thai students rank so high in happiness and the communal recognition given to retiring teachers in rural areas (see Rosarin 2015).

In contrast, the urban Thai view is more “self-oriented,” chiefly focused on individual happiness, material comforts, seeking pleasure and recognition, and neglectful of religious values (Sanitsuda and Wilgus 2001). Some have termed this urban materialistic world a “prestige society” in which individuals' worth is judged by their material wealth and this reflects what is called “money politics.”

2.6 Social and Ethnic Problems and Issues

Thailand faces a variety of social problems including prostitution, drug and alcohol abuse, crime, corruption, increased divorce, mental health needs, justice shortcomings, and environmental pollution and degradation. Social and income inequities have increased as well as regional disparities. Though the percent living in poverty has declined substantially and incomes for the poorest segment of society have improved, the gaps between the rich and poor continue to widen. Thailand now has one of the highest Gini coefficients (an excellent measure of the inequality of

income distribution) in the world making it comparable to Brazil, for example (see Fry and Kempner 1996). In manufacturing, many migrant female workers work long hours with relatively low pay. The increase in the minimum wage in 2013 to 300 baht per day (roughly \$10) (part of Yingluck's populist political platform) was highly controversial but certainly improved the lives of Thai workers.

Though Thailand has a long tradition of being a tolerant Buddhist society and has done well in assimilating its large Sino–Thai population, the past years has seen an escalation of violence and ethnic tension in the four southernmost provinces of Thailand. During the period 4 January 2004 to 31 May 2012, there have been 11,754 violent incidents, 5,206 deaths, and 9,137 injuries in Narathiwat, Pattani, and Yala (Fry 2013, p. 19; Srisompob and Panyasak 2006). Teachers, being symbols of the Thai state, have been targeted in the insurgency, with 95 killed since 2004 (Fuller 2009). The government failed to realize the seriousness of the problem and its many multifaceted dimensions including narcotics trade and arms trafficking. Also the tragic Tak Bai incident and other human rights abuses have aggravated the situation. Much research has been done on the southern insurgency, but unfortunately it has not been adequately used to address the serious underlying problems. Key issues are to provide Malay–Muslims in the region more educational/occupational opportunities and to respect their Islamic identities.

2.7 Future Outlook

While “no one can see in the dark,” the late Dr. Sippanondha Ketudat, Thai education reformer, and Professor Robert B. Textor (1990) urge policy makers and planners to try to anticipate future trends and patterns, not to predict the future. Drawing on the work of Sippanondha and Textor on the future of Thailand, a special publication of *The Nation* (2011) in which 40 Thai specialists (Thai and Western) examine the next 40 years in numerous arenas, and my own recent fieldwork in Thailand in 2015 and early 2016, I offer some thoughts on the future outlook for Thailand.

2.7.1 *Succession of the Crown Prince to Become King Rama X*

King Bhumipol the Great unfortunately passed away on October 13, 2016, at age 88 after 70 years on the throne, the longest reigning monarch in the world. He was noted for being an extraordinary Renaissance man and a true servant leader dedicated to his people. He was also described as “teacher of the land” (Fry 2016; *Thai Rath* 2017).

Based on the 1924 Law of Succession, HRH Crown Prince Vajiralongkorn on December 1, 2016, was proclaimed King Maha Vajiralongkorn Bodindradebayavarangkun (King Rama X). The monarchy has been such an integral part of Thai political culture for centuries that it is likely to persist for decades

ahead. Currently Thailand is one of the few surviving Buddhist kingdoms. Eventually, it may be one of the few surviving monarchies in the world.

2.7.2 Potential Labor Shortages

Given Thailand's low fertility rate, aging population, and dramatic increases in participation in tertiary education, there is the question as to where will Thailand find enough rice farmers, factory workers, and those to do less skilled jobs (such as cleaning hotel rooms) in the huge tourist sector. Fortunately Thailand is part of the ASEAN region, and many neighboring countries such as Burma (Myanmar) and Vietnam have quite large populations with much higher fertility rates. It is already estimated that Thailand has 2–4 million migrant workers, primarily from Burma. Now in the era of the ASEAN Economic Community (AEC), which began at the end of 2015, Thailand will need to draw upon more and more guest and migrant workers, and this presents important educational, cultural, and social challenges (Siriwan 2019).

2.7.3 Aging and Graying of the Population

Thailand is expected to have 20 million elderly people in the next 40 years. Currently there are over 1 million senior citizens who live apart from their children or grandchildren. This large population of senior citizens means an increased economic burden on the younger generations of Thais and has important implications for future health costs which will certainly accelerate (Wannapa 2011). But this also means there will be greatly increased employment related to care for the elderly, which has educational implications. Many working in this sector in the United States come out of the community college system.

2.7.4 Increased Competition in the ASEAN Economic Community Era (AEC)

With the AEC having become fully operational at the end of 2015, Thailand faces increased economic competition from its ASEAN neighbors in various areas. For example, in the area of rice exports, Vietnam is already a serious competitor, and Burma was once known as the “rice bowl of Asia.” Also with the dramatic changes occurring in Burma and its opening up to the outside world, over the next few decades, some are seeing Burma as a new “economic tiger.” To respond to these challenges, it is imperative for Thailand to increase the productivity of its people, improve the quality of its education (all levels), improve the language proficiencies of its people, and enhance intercultural competence among the Thai population.

2.7.5 Major Areas of High Potential in the Future: Continued Growth of Tourism

With the aging of populations in Europe, East Asia, and North America, and Thailand's central location in both Southeast Asia and Asia, Thailand has impressive potential to strengthen further its position as one of the world's leading tourist destinations in numerous areas (medical, adventure, eco, cultural, MICE) (MICE 2016). Also CHINDIA (China and India), given their proximity, growing wealth, and huge populations, will be a major source of future tourists and international investments (see Nyiri and Tan 2017; Yot 2015). Thailand is extremely fortunate to be in close proximity to three of the world's four most populous nations. Thailand already has a strong tourist infrastructure and that will improve significantly with dramatic modernization of the out-of-date Thai railway system. Also contributing to Thailand's tourist potential is Bangkok as a world class entertainment center. For the past 3 years, it has been rated by tourists as the best city in the world. Bangkok was named the most popular city in the world for tourists in 2017, passing London and Paris, which are now second and third (Talty 2017). It is home to one of the world's most renowned hotels, The Oriental, which once for ten consecutive years was ranked the top hotel in the world and attracts world celebrities (Stephens 2016). On 5 March, Bangkok was featured on the front page of a long positive article in the travel section of the *New York Times* by the noted author Lawrence Osborne (2017). And Bangkok will be getting soon a massive new contemporary art museum (West 2017). Thirty-two to thirty-five million tourist arrivals were expected in 2016, more than three times the number of arrivals in 2001, making it now the world's tenth leading tourist destination. Contributing to its increasing popularity, particularly among tourists from cold climates, is its eternal summer and having 1,430 beautiful tropical islands with thousands of beaches (Richardson and Kosecka 2018). By 2032, Thailand is expected to have approximately 100 million visitors a year (World Atlas 2017). In 2015 Thai tourist arrivals increased 20%, and this sector is the second largest in generating employment (5.4 m) (*The Report* 2016). Trupp (2017) in a recent study looks at tourism from the perspective of cultural diversity. Also Thailand is currently one of the world's leading destinations for medical tourism (Thinakorn et al. 2016).

2.7.6 Dramatic Changes in Transportation Infrastructure

Over the next decade, Thailand will develop high speed rail links with China, Vietnam, and Laos, to the north and Singapore to the south. A new high speed train link to Chiang Mai has been approved and should become operational in 2020. With increased labor costs, there will be much greater reliance on trains for transporting goods and commodities. Also the current skytrain (BTS) and subway (MRT) systems are being expanded to cover more areas of metropolitan Bangkok. These transportation improvements will further strengthen Thai tourism and the related need for improved diversity and quality of the language skills of Thai students and more extended training in the area of tourism/hospitality.

2.7.7 Thailand As a Food Exporting Nation, “Kitchen of the World”

Thailand is extremely fortunate to be a major food exporter and to have a strong agricultural sector with a huge diversity of crops and products (Rosarin and Fry 2018). With the world population expected to grow to 9 billion people over the next several decades, Thailand’s food exports will continue to grow. In fact, at some point there might even be an OFEC (Organization of Food Exporting Nations). Few developing countries are in a favorable situation similar to that of Thailand.

2.7.8 Shift in Export Markets

Over time the Thai economy has continued to be highly dependent on exports. That will continue but as markets in Europe and North America saturate, Thailand will increasingly export to the BRIC (Brazil, Russia, India, China) area and other emerging markets in Africa, the Middle East, and Latin America. In 2013, Thailand signed a free trade agreement with Chile, and that nation will be an excellent market for the large Thai automotive industry (now twelfth in the world and larger than that of either England or Italy). Also the branding success of a Thai product such as “Red Bull” reflects the potential for other Thai products to become popular globally (Neal 2011). Red Bull actually sponsors an international school in the Pattaya area, ISE International School.

2.7.9 Alternative Energies and Technologies

Bangkok is the world’s hottest city, and Thailand enjoys eternal summer, giving it tremendous potential to develop solar energy. Thailand recently completed a 84 Megawatt solar farm in Lop Buri that was built in only 18 months, a record for the kingdom and the world. Also with its rich tropical rain forests, it has tremendous potential in the biotechnology and alternative medicine areas.

2.7.10 Dramatic Increase in Cross-Cultural Marriages

With the “death of distance” and the ease of contacts between Thais and non-Thais in an increasingly globalized interconnected world, Professor William Klausner (2011) projects that there will be a continued dramatic increase in cross-cultural marriages between Thais and non-Thais. According to the College of Population Studies at Chulalongkorn University, there are 24,621 foreign men living in the Northeast with Isan wives (Chakkrapan 2018). Also the much greater contact among ASEAN peoples in the AEC era will also contribute to this trend, which has implications for both language and cultural studies.

2.7.11 New Era of “Half-Leaf Democracy”

One of the most complex areas to anticipate is in the area of Thai politics. Thailand is likely to continue with its European style parliamentary system which inevitably leads to coalition governments and a certain degree of instability. The intense polarization of recent years has been defused as reconciliation is actively pursued and the new constitution of 2016 is specifically designed to foster political stability. Also given Thai culture and its emphasis on harmony, many Thai were not comfortable with the excessive conflict and confrontation that occurred during the April–May 2014 political crisis. With Thailand’s strong NGO movement and growing political assertiveness and more cosmopolitan rural populations, the continued empowerment of ordinary people is likely to continue (Keyes 2014). The new “half-leaf democratic” constitution (approved in a national referendum in August 2016) with an appointed Senate having equal power to the elected House guarantees that Thailand will not have the political chaos and instability that characterized much of the 2006–2014 years of political turbulence and strife. When they approved the new constitution, many Thais were not voting for continued military rule but instead for continued political stability, harmony, and tranquility.

Another complex issue is the future of the four southernmost Muslim provinces where there has been much violence and turbulence in recent years. There are two solutions: one is to allow these provinces to secede and become an independent nation or become part of Malaysia (which is unthinkable for nearly all Thai politicians and policy makers); the second is to provide more cultural democracy and autonomy and educational/economic opportunities for the Muslim population there. That option must be actively pursued. Encouraging are developments such as the Peace Center in Yala developed by the former education reformer Dr. Rung Kaewdang to foster reconciliation and peace between Muslims and Buddhists in the region (see [Appendix II](#)).

2.7.12 Future Educational Potential

Given Thailand’s remarkable success in overcoming the digital divide, Thailand actually has special potential in an era of increasingly digitalized education and learning. With its highly successful Sukhothai Thammathirat Open University (STOU) which has provided distance learning throughout the kingdom and the Thai propensity to adopt easily new technologies (e.g., initially cell phones and now social media such as Facebook), Thailand has considerable potential as an international education hub in the AEC region. Also contributing to its potential in this area are its relatively low costs, the welcoming attitude of the Thais toward outsiders, and the existence of many high quality campuses. But as noted in numerous chapters of this volume, Thailand faces many challenging educational issues, particularly in the areas of quality and inequalities.

2.7.13 Overall Assessment

A major political question looms large in thinking about Thailand's future. The question is what kind of government will be formed after the next election? Will it be a progressive competent one such as that led by Anand following the military coup of February 1991 or a regressive mediocre one such as that which followed the military coup of October 1976. For Thailand to avoid the "middle-income trap," it is imperative that the new government and monarch give high priority to investing in human resource development, improving the quality of education for all, particularly those outside Bangkok (see Chap. 14), and increasing investments in strategic R & D (Patarapong 2018; see Chap. 16). Despite the problems and challenges mentioned above, PricewaterhouseCoopers projects Thailand to become one of the world's most powerful economies by 2030, ranking 22nd in the world (Brinded 2017).

Throughout its history Siam and then later Thailand has shown remarkable resiliency, adaptability, and creativity in responding to serious threats and crises. This augurs well for Thailand's capacity to deal with the serious problems the country now faces and to flourish in the areas in which it has great potential such as food exports, tourism, alternative energy sources, export growth and diversification, and as an international education hub (see Chap. 11).

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Chapter 3

Religion and Educational Development in Thailand



Gerald W. Fry

Abstract The discussion of religion and educational development tends to be a neglected topic. This area is particularly important in Thailand because religion is one of the three pillars of the nation. In the centuries prior to the visionary education reforms of King Chulalongkorn the Great to create a modern secular education system, the Siamese education system was basically religious with monks as the teachers and temples as the schools. Later Buddhist universities were developed in the King Chulalongkorn era, which is described. There is then a discussion of how Western missionary influence in the 1800s and early 1900s was important for the development of modern Thai education. Many of Thailand's elite most prestigious schools are missionary ones such as Assumption and Mater Dei. Then background is provided on Thailand's religious diversity, followed by a discussion of how certain Buddhist principles relate to progressive education. Among concepts discussed are Buddhist epistemology, modest consumption and the economic sufficiency concept (*settakit phophiang*) (เศรษฐกิจพอเพียง), and impermanence (relates to innovation). Also discussed are Buddhist implications for the curriculum and assessment. Another topic rarely discussed is how religion (both Buddhism and Christianity) can contribute to social mobility. Recent initiatives to have schools more active in promoting Buddhist thought are described. Among these initiatives are the *rongrian withiput* (โรงเรียนวิถีพุทธ) (Buddhist-oriented schools) and the creation of the Sathirakul Youth Education Foundation. The chapter concludes with reflections on happiness education, core values, and education for optimal living and sustainable development.

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Fig. 3.1 A school director's office with flag (*Chat*), Buddha image (*Satsana*), and picture of the King (*Phramahakasat*) (Photo courtesy of Dr. Rosarin Apahung)



Yes, you may well doubt, you may well be uncertain... Do not accept anything because it is the authoritative tradition, because it is often said, because of rumor or hearsay, because it is found in the scriptures, because it agrees with a theory of which one is already convinced, because of the reputation of an individual, or because a teacher said it is thus and thus... But experience it for yourself. The Lord Buddha, The Kalama Sutta (Khandipalo 1975)

3.1 Religion and Education: A Neglected Topic¹

Religion and education are a neglected and also highly contentious topic in many societies. In the USA, there is a strict constitutional separation of church and state, which does not allow the teaching of religion in public schools. Thus, all Catholic or Islamic schools, for example, must be privately funded.

The situation in Thailand is totally different. The official national motto of Thailand is *Chat* (ชาติ) (nation), *Satsana* (ศาสนา) (religion), and *Phramahakasat* (พระมหากษัตริย์) (King). In Buddhist parts of Thailand, the director's office of a school will always have a large Buddha image, and Buddhist moral education is an integral part of the curriculum (see Chaps. 5 and 6) (see Figs. 3.1 and 3.2). The Islamic "College" of Thailand, for example, is a public, government-financed school.

In Thailand, religion has had a rather profound impact on educational development. As noted by HRH Princess Maha Chakri Sirindhorn in Chap. 1, prior to the transformation of Thailand's education system into a modern, secular one through the reforms of King Chulalongkorn the Great in the late 1800s (Wyatt 1969), for centuries religion and education were nearly synonymous in traditional Siam. Temples were the schools, and monks were the teachers (Pachrapimon and Gamage 2011). The monks were a small intellectual elite creating and preserving traditional cultural values (Ishii 1986). Monasteries played an important role in promoting artistic creativity and diverse skills such as carpentry, architecture, painting, and pottery (Anuman Rajadon 1967).

¹ My experience as a Buddhist monk under the tutelage of Tan Achan Buddhādāsa Bhikku at Wat Suan Mokkh greatly influenced the way I think about Buddhism, religion, and education.

Fig. 3.2 Buddhist statue at a BMA temple school, Rongrian Wat Muang, Nakhon Pathom (BMR) (Photo courtesy of Achan Penpa Chomdech, School Director)



In 1833, Dr. Dan Beach Bradley came to Thailand as a Christian missionary. Siam's visionary rulers welcomed these missionaries who were then to have a rather profound impact on the development of both modern education and medicine in Siam (Hartzell and Acocello 2001). These missionaries established many of Thailand's most famous schools such as Assumption College, Mater Dei, Wattana, and St. Gabriel's. Dr. Bradley also built the first printing press to make possible the publication of materials in the Siamese language. Dr. Bradley was an avid advocate of education. He was close to the Siamese royal family and persuaded them to establish boarding schools for Siamese children as a way to expose them to modern education (Bradley et al. 1984; Bradley 2004).

Another important missionary educational figure was Dr. Samuel McFarland who had the vision to create a school in Siam similar to Robert College in Constantinople. With King Chulalongkorn's support and approval, he established Suan Anand School in 1879 in the old Nantha-Uthayan Palace which offered a 5-year bilingual secondary school-level course in both Thai and English. Students developed fluency in both languages. Prince Damrong was an effective advocate and patron of the school. Later in 1890, the school was renamed Sununthalai. McFarland and his school had a major impact on the development of postprimary education in Siam (Wyatt 1965).

Even today, several of Thailand's leading private universities such as Payap (established by the Church of Christ) and Assumption (established by the St. Gabriel brothers) have their roots in this early missionary movement. Assumption's current



Fig. 3.3 Bang Na campus of assumption university (Photo courtesy of Dr. Pavinee Pornsalnuwat Taniraykul, Thammasat University, and Jazno Francoeur, DigiPen Institute of Technology)

Fig. 3.4 Brother Hilaire, sage of assumption (Photo courtesy of reverend brother Surasit Sukchai, The Gabrielite Provincial Superior and Chairman of the Assumption University Council)



Bang Na campus is world class (see Fig. 3.3) and was the vision of Reverend Brother Dr. Prathip Martin Komolmas (Bro. Martin Collection). The French Catholic Reverend Brother Francois Touvenet Hilaire was headmaster of Assumption College from 1901 to 1968 (Anchalee 2015; Parinyaporn 2015; Surussavadi 2015) (see Fig. 3.4).

3.2 Buddhist Universities

Decades before Western missionaries were involved in creating private Thai universities, King Chulalongkorn the Great had the vision to create Buddhist universities to ensure that monks could receive higher levels of education and training. In 1887 he established what has become the country's preeminent Buddhist university, Mahachulalongkornrajavidyalaya. In 1893 he established a second Buddhist university, Mahamakut Buddhist University. In 1997 both of these institutions were made public universities under Thailand's system of higher education. The former university now is building a major new main campus in Ayutthaya to avoid the urban congestion of Bangkok and has 15 extension campuses around the country. In addition to these two public Buddhist universities, Thailand has two private Buddhist universities, such as the World Buddhist University (WBU) which is a headquarters for Buddhist institutions around the world that is similar in structure to the United Nations University. There is also an International Buddhist College (IBC) located in Songkhla in the South. Both Buddhist monks and lay students study at these institutions.

3.3 Background on Religion in Thailand

Though the vast majority (around 94%) of Thais are Theravada Buddhists, Thailand yet has considerable religious pluralism and diversity. The four southernmost provinces of Thailand (Narathiwat, Pattani, Satun, and Yala) are predominantly Muslim. There are also many Muslims in areas such as Phuket and Phangnga. The long island (Koh Yao) of Phangnga is largely Muslim. Also there are Muslim areas in Bangkok such as Klong Chan near NIDA. One of Thailand's most prominent Muslims, was late Dr. Surin Pitsuwan, former foreign minister of Thailand (1997–2001) and former secretary-general of ASEAN (2008–2012), who held two doctorates from Harvard.

Thailand also has a significant Indian diaspora, and many of these individuals are Hindu or Sikh. Among prominent Indo-Thais is Dr. Ammar Siamwalla, a noted Thai economist and former president of TDRI. During the nineteenth century, there was a great influx of Chinese migrants from coastal China, primarily the Fujian area (Boonsanong 1971; Botan and Kepner 2002; Skinner 1957, 1958). Thus, Thailand has a large Sino-Thai diaspora, primarily found in urban areas of the country. These individuals have certainly been influenced by both Buddhist and Confucian thought. Many of Thailand's leading business entrepreneurs and intellectuals have Sino-Thai roots reflective of a Confucian high-achievement orientation.

Though their numbers are not large, Thailand does have a significant group of Christians of various denominations. Among prominent Thai Christians are Reverend Brother Dr. Prathip Martin Komolmas, key player in the development of Assumption International University (Bro. Martin's collection, see [Appendix II](#)),



Fig. 3.5 Catholic church in Chanthaburi, Thailand (Photo courtesy of Wanwisa Fon Somsiri and “Again Peace” (Jutima Boonseng)). There is a large Catholic community of Vietnamese in Chantaburi (Poole 1970)

Dr. Amnuay Tapingkae who was instrumental in the development of Payap University and who did a major book on Thai education (Amnuay and Setti 1973), and Dr. Saisuree Jutikul who was the first dean of the Faculty of Education at Khon Kaen University, former senator and cabinet minister who has fought tirelessly for women’s and children’s rights, and an outstanding pianist (NCWA 1993). Thailand has a significant Vietnamese diaspora primarily in Sakon Nakhon and Chanthaburi, and many of these individuals are Catholic (see Fig. 3.5). Since Thailand’s hill peoples in the north were for the most part animist, and not Buddhist, many of them converted to Christianity (Pine 2014). Numerous years ago, I attended a rather amazingly large Karen Catholic celebration of Christmas in a remote part of Chiang Mai. A huge group of Karen from around the area came together for a festive celebration of Christmas. Currently Korean missionaries are active in Thailand promoting Christianity (Chǒng 2003; Steinberg 2010).

Unlike many other countries, Thailand is noted for its religious tolerance. One of Thailand’s most prominent Buddhist monks, Tan Achan Buddhādāsa Bhikkhu (1967), was active in encouraging dialog between Buddhists and Christians and Buddhists and Muslims. He was visionary in anticipating the currently popular concept of civilizational dialog being promoted by the UN and Appiah (1996).

3.4 Challenges in Studying Religion and Its Influences on Education

There are numerous challenges faced in examining the influence of religion on education. The sociologist of development, Marion J. Levy (1966), makes the important distinction between ideal and actual types. Religious ideals may not be practiced in

actual behavior. A case in point is the current issue of the treatment of the Rohingya Muslims in Buddhist Myanmar (Burma) (Kristof 2016). There are numerous “Christians” in the USA who unfortunately display patterns of hatred and bigotry toward religious groups different than themselves as noted by Wendell Berry (Berger 2004). The behavior of extreme “Islamic” terrorists is not consistent with the ideals of Islam.

Second, it is important to distinguish between religion as rituals and ceremonies and religion as a moral, ethical system and as a system of thought. In this chapter, the emphasis is on religion as a moral, ethical system and as a system of thought.

3.5 Religion, Education, and Development: Opposing Views

I. R. Sinai (1964) in his book, *Challenges to Modernization*, argued that Burma had no economic future because of its traditional Buddhism which he saw as blocking prospects for development. In contrast, the psychologist Douglas Burns (1963) stressed that Buddhism was a religion highly consistent with modern science, because it did not require any beliefs in supernatural beings and its basic law of dependent origination could be studied empirically (see Amnuay 1973; Saeng 1973).

Buddhist epistemology was articulated around 2500 years ago by the Lord Buddha and is an important part of the Thai educational historical context. The Kalama Sutta cited at the beginning of this chapter illustrates the Buddha’s highly progressive approach to learning and teaching. This Buddhist epistemology was both prescient and visionary articulating a critical, experiential, and dynamic pedagogy several millennia before Thomas Dewey, Lev Vygotsky, Paulo Freire, and Ivan Illich.

Tu Wei-ming, one of the world’s leading scholars on Confucian thought, examines carefully how countries influenced by that philosophy have done extremely well economically and educationally (China, Japan, Korea, Singapore, Taiwan) (Tu 1993, 1996). Japan, with its syncretic Buddhist, Confucian, and Shinto religious influences, probably leads the world in the quality of its moral education.

Numerous Thai writers and scholars have stressed the need to integrate education and religion, based on the notion that education should be holistic going beyond a focus only on the development of cognitive and analytical skills (Ekawit cited in Methangkuro 1987; Kowit 2000; Paitoon and Pranom 1990; Thawon 2003; Suphat 1999). Saroj Buasri (1970) argues that Buddhism provides a workable philosophy of education for Thailand and can contribute to political development.

3.6 Religious Figures As Major Producers of Knowledge

As in other parts of the world (H.E. Maude (1968), e.g., writing about the South Pacific), numerous religious figures in Thailand, including both missionaries and Buddhist, have been influential scholars. Brother Francois Touvenet Hilaire, for

example, produced a major series of Thai language textbooks (*Darunsueksa*). Dr. Dan Beach Bradley produced the first ever monolingual Thai dictionary.

In more recent decades, Father Jean Barry helped Dr. Saisuree Jutikul develop the Faculty of Education at Khon Kaen University (established in 1968) and did a study of Thai students in the USA (Barry 1967). Father Jacques Amyot (2003) helped develop the Chulalongkorn University Social Science Research Institute (CUSRI) and was an active scholar. The missionaries/anthropologists Lewis and Lewis (1984), working in northern Thailand, did a major study of Thailand's hill peoples.

Numerous Thai Buddhist monks have also been active as scholars. Most prominent is Tan Achan Buddhādāsa Bhikkhu (Ito 2012; Jackson 2003) who published over 100 books and whose work was popularized in English by Harvard professor Donald Swearer (Phra Thēpwisutthimēthī and Swearer 1989). Buddhādāsa was recognized in 2005 by UNESCO as one of the great personalities of the last century. Other prominent Buddhist scholars are Phra Dhammapitaka (also known as Phra Thepwethi, Phra Rajavaramuni, and Prayudh Payutto) (1984, 1987, 1994); Khemananda (Rung°arun Na Sonthayaa et al. 2015), a protégé of Buddhādāsa; Phra Payom Kanlayano (2018); Phra Pothiyānathera (Achan Chah) (2001); and Phra Wisalo (1991). Phra Payom was highly successful in popularizing the teachings of Buddhism to make them attractive to younger people. Achan Chah was a northeast meditation master who influenced many Westerners (particularly from Australia) to understand and embrace Buddhism.

Bhikkhuni Thammananthā (1991, 1998, 2004, 2011), formerly Chatsumarn Kabilsingh as a professor at Thammasat, is a prolific female Buddhist priest writing about topics such as women in Buddhism and Buddhism and the conservation of nature (Thammananthā 1991, 1998, 2004, 2011). Also the Buddhist nun, Mae Chee Sansanee Sthirasuta, plays the multiple roles of activist, educator, writer, social entrepreneur, and artist (Adachi 2010; Litalien 2001; Hart and Sansani 2010; Monthira 2005; Sansanee 2003, 2009).

3.7 Religion and Social Mobility

There are numerous ways in which religion in Thailand contributes to education for social mobility. For example, there is a tradition in Thailand for all Buddhist males at some point in their lives to become Buddhist monks for a flexible period of time, frequently for 3 months. Monks have the highest social status in Thai society. So becoming a monk provides “instant social mobility” (Wyatt 1966). The Thai civil service processes allow for “monk leave.”

But more importantly, Thai males of lower socioeconomic background can become “*dek wat*” (temple boys). In return for helping the monks, they are provided free room and board. Currently with free tuition for 15 years of schooling, this means that a “*dek wat*” can study totally for free with neither tuition nor living costs. Former prime minister Chuan Leekpai (from a humble background) benefited from

having been once a *dek wat*. Interestingly, he had a reputation for being one of the most honest and humble Thai politicians. Also missionary teachers have been known to identify talented students of lower socioeconomic background, encourage them to continue their studies, and help them find funding to do so.

3.8 Key Buddhist Principles with Positive Implications for Progressive Educational Development

The grand master, Ven. Wei Chueh, of the Chung Tai Chan Monastery (Chinese Zen Buddhism), in Taiwan, emphasizes that Buddhism should be linked to research, education, culture and the arts, science, and daily living (Chung Tai Chan Monastery 2015, see also Thepwethi and Olson 1987). In the sections that follow, key Buddhist principles are elaborated which are related to progressive educational development.

3.8.1 Buddhist Epistemology

As indicated in the quotation from the Kalama Sutta at the beginning of this chapter, Buddhist epistemology is extremely progressive and is as relevant today as 2500 years ago. It calls for individuals to be critical in their thinking and skeptical about various knowledge claims. Perhaps most importantly it stresses to base thinking on empirical evidence discovered through direct experience. Thus, it is highly consistent with the kind of experiential learning emphasized by Dewey, whose ideas had a great influence on China (Dewey 1973). The student-centered learning approach emphasized in the 1999 National Education Act closely reflects Buddhist epistemology.

3.8.2 *Annijang, the Concept of Impermanence*

The one constant in the university is impermanence (Anand Buddhdmamo 2009). Everything changes and is in constant flux. In fact, with the powerful forces of globalization and interconnectivity, we are in an era of accelerating change (Did you know? 2018). Education must prepare students for this world of rapidly accelerating change and an unknown future. This concept also relates to the business principle of *continuous innovation* emphasized by dynamic innovative companies such as Apple, Nike, and Samsung.

3.8.3 *Sati, Mindfulness*

In recent years, there has been increasing emphasis on the importance of mindfulness and how it relates to effective leadership and communication (Begley 2007). This concept also relates to the growing need to develop students' EQ (emotional intelligence) (Goleman 2003, 2005; Goleman et al. 2012). The practice of mindfulness is one of the most practical and beneficial principles that all students everywhere need to learn (Boyce 2011, Thich Nhất Hạnh and Weare 2017). Mindfulness can prevent accidents which can happen in the blink of an eye.

3.8.4 *Annata, Nonself*

This principle relates to transcending egotism and selfishness, a major theme of most world religions. It relates to sharing credit appropriately. The concept promotes transparency and avoidance of costly and damaging cover-ups. In terms of preparing students well for future leadership roles, it fosters humility rather than arrogance. This concept is also found in Taoism (Dreher and Laozi 1996; Lin 1955).

3.8.5 *The Four Virtues of Karuna (Compassion), Metta (Loving Kindness), Mudita (Deep Empathy), and Upekkha (Tranquility)*

The first three of these virtues relate to what Appiah (1996) has called the cosmopolitan ethic. One noteworthy Thai example of these virtues is Dr. Krisana Kraissintu (known as the "gypsy pharmacist") who received the 2009 Magsaysay Prize for her tireless efforts to bring low-cost AIDS and malaria drugs to sub-Saharan Africa. Another example is the Buddhist nun, Mae Chee Sansanee Sthirasuta. When a devastating cyclone hit Myanmar (Burma), she and her colleagues quickly traveled there to assist victims of this natural disaster.

3.8.6 *Reverence for Life in All Its Forms*

This principle is beautifully articulated in the biographical novel of the Lord Buddha by the German-Swiss Nobel laureate Hermann Hesse (1951). Another Thai Magsaysay winner, Mechai Viravaidya, is a vivid example of this principle. He has been credited with saving over one million Thai lives with his creative AIDS education programs (D'Agnes 2001).

3.8.7 *Voluntary Simplicity and the Sufficiency Economy (Settakit Phophiang)* (เศรษฐกิจพอเพียง)

In a recent definitive biography of HM King Bhumibol the Great (Grossman 2012), it is noted that the sufficient economy philosophy of HM is based on basic Buddhist principles, particularly the middle path of moderation and the law of cause and effect. Of all the key Buddhist principles discussed, this one has perhaps the greatest relevance for future generations and the future of our planet. It also relates to the principle of education for sustainable development being emphasized currently by the United Nations (see also NESDB 2005). With global warming threatening the world, it is imperative that individuals adopt more modest lifestyles. HM King Bhumibol Adulyadej received numerous awards for his promoting the sufficiency economy (*settakit phophiang*), including the United Nations Lifetime Achievement Award (see Avery and Bergsteiner 2016). School gardening being promoted in remote schools which are part of HRH's network reflects this important principle. This concept is also a kind of Buddhist economics popularized by the British economist, E. F. Schumacher (1973, 1979), who was inspired by his work in Buddhist Burma (see also Rajavaramuni and Olson 1987; Thepwethi 1994).

In addition to the sufficiency economy being infused into the basic curriculum by OBEC, Thai universities are also promoting this concept and offering courses on the sufficiency economy. Mahidol University has a new green campus and is looking to enhance its curriculum on the sufficiency economy and sustainable development. Srinakharinwirot University has opened a branch campus, the Bodhivijjalaya College, in Sa Kaeo, near the Cambodian border to emphasize the sufficiency economy and to open up greater opportunities for those in remote areas. This branch campus of SWU plans to open learning centers in the north in Tak Province near Myanmar and Nan Province near Laos. NIDA established the Center for the Study of the Sufficiency Economy (NIDA 2015). Chulalongkorn University, Thailand's first and a leading university, has implemented a number of self-sufficiency economy initiatives (see Chanita 2015).

3.9 Religion and Educational Testing and Quality Assurance

Thailand's National Institute of Educational Testing Service (NIETS) actually has developed formal tests to assess students' knowledge of both Buddhism (B-NET) and Islam (I-NET). Few other nations are doing such testing of religious knowledge and understanding.

The Office of National Standards and Quality Assurance (ONESQA) was aware that, if assessment is done in terms of evaluation, it can be considered rather threatening and "unfriendly." Thus, ONESQA drew upon the Buddha's teachings on the qualities of a good friend to build a model of amicable (*kalayanamit*) (กัลยาณมิตร) assessment emphasizing "formative" evaluation to help schools improve through receiving constructive criticism (see Chap. 24).

3.10 Buddhism and the Professional Development of Teachers; Buddhist Monks Opposing the 1999 Education Reform

As an important part of the 1999 education reform movement, a strategy was formulated to create a learning network among teachers recognized for their best practices in each subject area. To familiarize Thai teachers with this strategy, the metaphor “lotus above the water” was drawn from Buddhism, and the Lord Buddha’s genres of learners were used in identifying master teachers excelling in using student-centered learning approaches (see Chap. 21, Sect. 21.4.5). With the important “all for education” principle, Buddhist monks can play an important role in education as a source of local wisdom and teachers of moral education (Chai Abhakaro 1973).

Despite the progressive nature of Buddhist epistemology and numerous Buddhist principles, as noted above, being highly consistent with education reform, the Buddhist clergy in an unexpected development strongly opposed the 2003 administrative restructuring of the ministry of education, which would have brought them under the same management as Islam and other religions in Thailand. They were instead advocating for Buddhism to have its own administrative structure and independence (see Chap. 21, Sect. 21.7.8). There have been numerous attempts to make Buddhism the national religion of Thailand, but those efforts have always failed reflecting Thailand’s commitment to *religious pluralism* (the national motif of nation, *religion*, and state) (Pravit 2016).

3.11 Implications for the Thai Curriculum

Religion is actually an important part of the current curriculum (see Chaps. 5 and 6). However, given a rapidly changing increasingly multicultural world and the inception of AEC at the end of 2015, the teaching of religion in the Thai curriculum must go beyond conserving important religious rituals and traditions and fostering moral character. Since numerous students do not go on to college, it is important to have a broadened treatment of religion as part of the secondary school curriculum as well as in higher education. The focus should be on an exposure to diverse religious value systems. There is great religious diversity among the ten AEC countries. Thus, it is important for Thai students to know not only about the different genres of Buddhism but also to develop a good knowledge of Islam (relevant to understanding Brunei, Malaysia, and Indonesia), Christianity (relevant to the Philippines and Vietnam), Hinduism (relevant to Malaysia and Singapore), and Confucianism/Taoism (relevant to Singapore, Malaysia, and Vietnam). It is also important to appreciate not only Vietnam’s triple religion known as *tam giáo* (Mahayana Buddhism, Confucianism, Taoism) but also its other religions such as a large fascinating syncretic religious group, Cao Đài, with 4–8 million followers, who worship, as their saints, Victor Hugo, Sun Yat Sen, and Trạng Trình Nguyễn Bình Khiêm, a

prominent Vietnamese educator, administrator, poet, and sage of the 1500s. It is also important to be aware of the influential Buddhist writings of the prominent and influential Vietnamese monk, Thich Nhat Hanh (2004, 2007).

Thailand has a long tradition of religious tolerance illustrated by its openness to Christian missionaries historically and today as well. There are currently many Korean Christian missionaries active in Thailand (Chong 2003). Thailand has the potential for showcasing an exemplary model of education for religious tolerance (Fry 2015).

3.11.1 The Creation and Expansion of Rongrian Withiput (Buddhist-Oriented Schools)

The goal of this innovative program was to create Buddhist-oriented schools by drawing upon key principles of Buddhism to use both in the administration of schools and to enhance the moral education of students in the schools. There is a special emphasis on the Buddhist philosophy of education and training (*traisikkha*) (ไตรสิกขา), threefold training. There is an emphasis on three elements: (1) moral behavior, (2) right mind, and (3) ultimately wisdom. The goal is the development of both moral and intellectual virtues. The participating schools are those regular public schools (primary and secondary) under the jurisdiction of OBEC. This particular program is handled by the Office of Innovation Management Studies of OBEC with collaboration of the Mahachulalongkorn Buddhist University. The program started back in 2003 with 79 participating schools. By the year 2014, more than 20,000 schools around the country had joined the program.

3.11.2 The Establishment of the Sathirakul Youth Education Foundation

This foundation, established in 2003, which receives financial support from the Crown Property Bureau (CPB), includes three centers, namely:

1. Centre for the Promotion of Moral Education Schools (*rongrian khunatham*) (โรงเรียนคุณธรรม)
2. Centre for the Study of Sufficiency
3. Centre for Educational Psychology (CEP)

The goal of the first center is to promote moral education across the curriculum. It was established in response to concerns that Thailand in the face of rapid materialism, modernization, and globalization was losing its moral compass and traditional values which emphasized compassion, honesty, contentment, empathy, unity, civility, humility, tranquility, and kindness. It also responds to the critique that the

academic system was narrowly focused on only academic achievement (Kowitz 2000). The center conducts workshops, training, and research to promote moral education throughout the Thai educational system and across schools and their curricula.

The second center was inspired HM King Bhumibol's philosophy of the sufficiency economy which was an integral part of Thailand's Ninth National Development Plan (2002–2006) (NESDB 2005). Unfortunately, there have been misunderstandings and different interpretations of HM's philosophy. The goal through outreach, training, research, and scholarships is to promote both a deeper understanding and broader implementation of the sufficiency philosophy. Awards are given to the schools best implementing the sufficiency philosophy.

The third center, CEP, has these foci:

- Promotion of Socratic teaching
- Encouragement of peer tutoring
- Fostering better relations between teachers and students
- Increasing parental involvement in education
- Creating mindset breakthroughs

The president of the foundation overseeing these three centers is Privy Councilor Dr. Kasem Wattanachai, former minister of education (see [Appendix II](#)).

3.12 Concluding Reflections: Happiness Education, Core Values, and Education for Optimal Living and Sustainable Development

Do not educate your children to be rich, educate them to be happy. So when they grow up, they will know the value of things, not the price. (Adapted from *Emily's Quotes* 2015)

In recent years, there has been increasing interest shown in the concept of human happiness as the ultimate measure of progress, not narrow economic measures (Yongey et al. 2007). The concept of gross national happiness as an alternative to GDP/GNP was introduced by the Buddhist king of Bhutan. A French scholar, Emma Seppälä (2016), science director at Stanford's Center for Compassion and Altruism Research and Education, has written about the "happiness track" and the science of happiness. The late Nobel laureate and mathematician, Bertrand Russell (1996), wrote an important but neglected book on this topic.

Strangely in education with so much emphasis on academic achievement and standards, happiness is rarely mentioned as a goal (Noddings 2003; Fry et al. 2017). What is more important than happiness? In cross-national surveys done, Thai students rank among the highest in the world in happiness (number 4 out of 64 countries ranked), one area of education in which Thailand really shines (OECD 2015, p. 24). Thai students on this criterion are far above the OECD average. The Buddhist law of dependent origination described above provides insight into the factors caus-

ing human suffering (Dhammapitaka and Moore 2011). The inverse of suffering is in reality happiness. Thus, it seems eminently reasonable that students in highly Buddhist countries like Thailand would be relatively happy. Even today Thailand has many *rongrian wat* (โรงเรียนวัด) (temple schools), located on temple grounds.

Historically, religion has played an important role in Thailand's educational development (Khammai 2018). Many of Thailand's best private schools at both the basic and higher educational level have religious roots. Both Buddhist and Confucian thought are conducive to fostering the highly related outcomes of teaching excellence and quality education. Thailand has excellent potential through education to enhance further its reputation for religious tolerance and openness.

The current 12 core values being emphasized by the government of Prime Minister Prayut Chan-o-cha are an attempt to overcome the intense political polarization that plagued Thailand from 2006 to 2014. A number of these core values relate to key Buddhist principles articulated above such as honesty, mindfulness, respect and gratitude for teachers, generosity and sharing, knowledge seeking, discipline, and the sufficiency economy.

Sanitsuda Ekkachai and Nick Wilgus (2001) in an important book on Buddhism at a crossroads stresses that its core values are threatened by powerful forces of globalization, consumerism, and materialism, and there is a preoccupation with rituals and ceremonies. But she views Buddhism as still relevant to modern Thai life and problems. Both Buddhist and Confucian thought emphasize voluntary simplicity over excessive materialism. These ideals resonate with education for sustainable development and meeting the challenges of global warming. To conclude, this religious model of the *optimal life* is not having but instead *being* (Fromm 1979; Fromm and Funk 2014) with self-cultivation of knowledge and learning. This philosophy of life is elegantly articulated by Thomas Rohlen:

Devotion to the idea that self-cultivation through the disciplined pursuit of knowledge is the path to human perfection

Thomas Rohlen, anthropologist, Stanford University (McConnell 2000, p. 139)

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Part II
The Contemporary Thai Educational
System

Chapter 4

The Structure of Thai Education



Cuttariya Jangdecha and Panthep Larpkesorn

Abstract This chapter is largely descriptive providing a detailed overview of the structure of Thai education from preschool to graduate studies. It covers not only formal but also nonformal and informal education. Detailed statistics are provided related to the size and scope of the various parts of the structure. While the Ministry of Education (MOE) is the major provider of educational programs and services, there are many other ministries and entities involved in offering education, which are described, reflecting the important principle of the 1999 NEA, “all for education.” Considerable attention is devoted to the major restructuring of the MOE which occurred in 2003 as part of the 1999 education reform initiative. By way of summary and synthesis, the chapter provides an important historical overview of the evolution of the four major structural changes in Thai education. The chapter concludes with a description and analysis of the new structure for decentralization articulated in March, 2016.

4.1 Objectives of the Chapter

This chapter on the basic structure of the Thai educational system has four basic goals:

1. To provide an overview of the three basic genres of education comprising the Thai system
2. To provide a detailed description of the different levels of education
3. To show the overall structure of the system (Fig. 4.1)
4. To explain the organizational structure of the system and how this was fundamentally restructured in 2003 as an integral part of the 1999 education reform reflected in the 1999 NEA as amended in 2002 (ONEC 2003)

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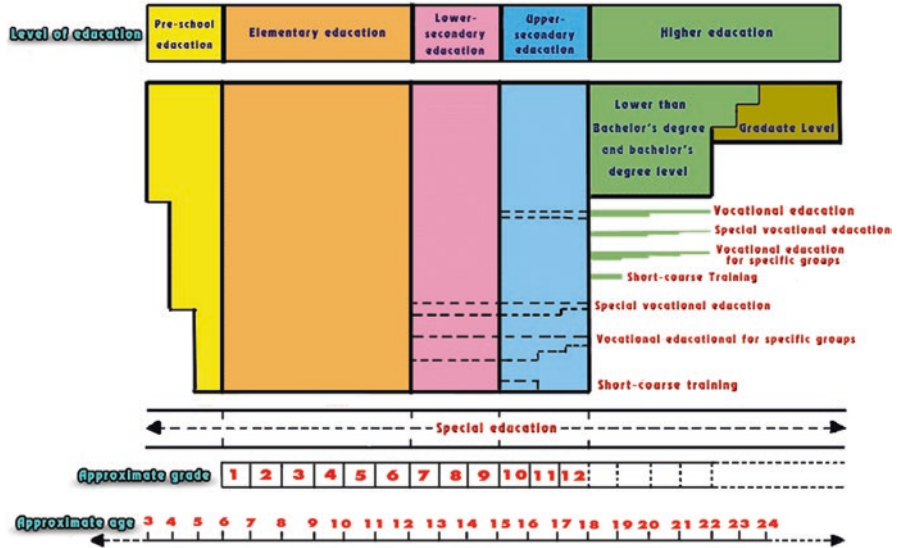


Fig. 4.1 The basic structure of Thai education

Education in Thailand has developed and changed significantly over the past hundred years. In 2013, Thailand was praised for its strong commitment to the UNESCO Education for All initiative over the past two decades. There are a total of 1,985,493 schools. The gross enrollment ratio at the preprimary level increased to 118.5%, 95.4% in elementary, 93.6% in lower secondary, and 75.7% in upper secondary levels, respectively. The majority of students are in schools (public and private) administered and/or monitored by the Ministry of Education. Other students are in schools managed by ten other diverse ministries and agencies, such as the Department of Local Administration (DOLA) of the MOI (responsible for municipal schools in provinces outside Bangkok, the Border Patrol Police, some Tambol Administrative Councils (TAOs), and city governing bodies such as the Bangkok Metropolitan Administration (BMA), Phuket, and Pattaya) (see Table 4.1). The Ministry of Education provides the majority of schooling services, being responsible for the management of 57.3% of all primary schools and 89.4, 91.5, and 95.6% of primary, lower, and upper secondary schools, respectively. Basically, the Ministry of Education controls and provides the largest part of educational services in Thailand.

In terms of the literacy rate of the population aged 15 years and above, Thailand successfully reached 93.5% in 2013, which is well above the world average of 83.7%, but is still lower than the average benchmark, 99.0% of Eastern Europe and North America. Moreover there are still differences in the rate of literacy of the population between the working population and more recent school cohorts. The latter reached 98.1% literacy in 2011.

Under the present education system, various types and methods of learning are offered to Thai learners regardless of their economic, social, and cultural backgrounds. Educational approaches are classified as formal, nonformal, and informal. All types of education can be provided by educational institutions as well as learn-

ing centers organized by individuals, families, communities, community or private groups, local administration organizations, professional bodies, religious institutions, welfare institutes, and other social institutions. In terms of service providers, a number of agencies inside and outside the Ministry of Education are responsible for education. In recent decades the government has shown a strong financial commitment to public education (see Chap. 23).

4.2 The Structure of the Thai Educational System

4.2.1 Basic Genres of Education

4.2.1.1 Formal Education

Integral to understanding formal education, it is essential to examine carefully its aims, methods, curricula, duration, assessment, and evaluation. Through both public and private institutions, formal education services are mainly provided to those within the schooling system, at both basic and higher education levels, and in both general and vocational education streams. Formal education services in Thailand are provided in diverse formats for several major target groups:

- Mainstream education, in both general and vocational streams, provided for general students in regular schools.
- Basic education for children with special educational needs including special education for gifted and talented students; special education for students with disabilities provided by special schools, special centers, and inclusive schools; and welfare education for disadvantaged students provided by welfare schools and Border Patrol Police Schools.
- Education for ecclesiastics and educational provision by several religious institutions.
- Specialized education provided by specific agencies other than the Ministry of Education (such as public health colleges administered by the Ministry of Public Health and schools of fine arts administered by the Ministry of Culture).
- International education provided by using languages other than those specified in the 2008 Curriculum for Basic Education. This rapidly growing genre includes international schools of diverse types such as US-oriented (e.g., the International School of Bangkok), British, Japanese, and Chinese schools (see Chap. 11).

4.2.1.2 Nonformal Education (See Chap. 8)

Nonformal education is provided by both public and private bodies. Under the supervision of the Ministry of Education, the Office of Non-formal and Informal Education is the main agency in charge of nonformal and informal education. This

Office offers services to various target groups through traditional methods and through e-Book, e-Library, and e-Learning, offering three main types of nonformal technical and vocational training programs, such as the following:

- Nonformal program for a Certificate in Vocational Education: Nonformal education activities leading to the Certificate in Vocational Education are provided through distance learning to lower secondary school graduates, both the unemployed and those working in public organizations and private enterprises. This program requires at least 3 years of study, except when there is a transfer of academic performance or experience.
- Short-course vocational training program: Short course vocational training is provided in many areas by both public and private institutions and agencies. These courses are offered from 3 hours to 1 year and are designed to serve the needs for self-employment and to articulate with formal programs in order to serve lifelong learning.
- Interest group program: Teaching and learning activities are organized according to the individual needs and interests of the general public. Those having the same interests can form a group of 5–15 persons and receive training of up to 30 h. Generally, the following nonformal educational services are provided by the Office of the Non-formal and Informal Education: Provision of Non-Formal Education for Pre-School Children, Provision of Fundamental Education for Literacy, General Non-Formal Education, and the Non-Formal Technical and Vocational Education and Training Program. In addition, several agencies responsible for education services, welfare services, and public services also provide vocational training activities concerned with quality of life improvement.

The Bureau of Special Education Administration under the supervision of the Office of the Basic Education Commission, the Ministry of Education, is responsible for 77 special education centers in each of Thailand's 77 provinces. These centers render special educational services on site and at inclusive schools, at homes, and in hospitals. They also organize meetings/seminars to provide knowledge for parents of the disabled and relevant agencies and conduct research and formulate the curriculum for short-term training for the disabled.

As mentioned above, nonformal education is also specially arranged for children with disabilities. Apart from the Ministry, special education for the disabled students is provided by several other agencies including the Department of Social Development and Public Welfare under the supervision of the Ministry of Social Development and Human Security, as well as by some demonstration schools, municipal schools, and private foundations. Moreover, some hospitals also organize classes for children with disabilities resulting from chronic conditions (see Chap. 12).

4.2.1.3 Informal Education

Informal education enables learners to learn by themselves according to their interests, potential, readiness, and the opportunities available from individuals, society, environment, media, or other sources of knowledge as follows:

- Informal education programs provided by institutions such as libraries, museums, and science/technology as well as by mass media (e.g., radio, television, newspapers, and magazines). The Buddhist nun, Mae Chee Sansanee, for example, uses media actively to promote Buddhist moral education
- Informal education programs of community learning networks, i.e., community learning centers, village reading centers, subdistrict health offices, subdistrict agricultural offices, as well as natural learning sources in each community

Informal education involves learning from such various sources as follows: a) local wisdom which includes culture and the body of knowledge in each community; local media which plays an important role in passing on knowledge and social values through several kinds of performance. There are, for example, 13 daily newspapers in Bangkok (including both English and Thai), which are distributed throughout the nation. This is far greater than in any US city. Families are learning sources from birth for all people; and provide networking opportunities through cooperative activities.

Several ministries are involved in providing informal education to promote lifelong learning, through information dissemination, educational activities, or academic and professional programs for different target groups relating to the responsibilities of each organization. New lifelong learning sources have been established, while existing ones have been improved and developed in accordance with Section 25 of the 1999 National Education Act (ONEC 2003), which requires the state to promote the running and establishment, in sufficient number and with efficient functioning, of all types of lifelong learning sources.

According to the Bureau of Educational Standards and Learning Development, there are approximately 3200 learning sources in Thailand, comprised of public libraries (864), museums (293), art galleries (21), zoological gardens (45), public parks (1260), botanical gardens (70), science and technology parks, sports and recreation centers (91), national parks (95), and more than 450 other sources of learning. The Ministry of Education (1994) under the leadership of Permanent Secretary Kowit compiled a valuable national directory of educational parks and gardens. Efforts have been made to enable individuals to learn at all times and in all places through a wider range of lifelong learning facilities.

Included among the new lifelong learning sources are:

- The Office of Knowledge Management and Development, a public organization under the aegis of the Office of the Prime Minister. At present, it is comprised of six separate entities, namely, (1) Institute for Gifted and Innovative Learning (IGIL), (2) Thailand Knowledge Park, (3) National Discovery Museum Institute, (4) Thailand Creative and Design Centre (5) Thailand Centre of Excellence for

Life Science, and (6) Centre for the Promotion of National Strength of Morals, Ethics, and Values: This center has been established to promote morals and ethics through the interaction of the public and private sectors throughout the country.

- The National Science Museum Organization, a state enterprise under the supervision of the Ministry of Science and Technology, operates the four following museums: (1) the Science Museum, (2) the Information Technology and Telecommunications Museum, (3) the Natural History Museum, and (4) the Environment and Ecology Museum.
- The Bangkok Children's Discovery Museum was established by the Bangkok Metropolitan Administration in 2001 to help children develop their ideas and gain experience in adapting to an urban environment and the country's economic and social development.

Several new public libraries have also been established, and services in all libraries have been improved. For example, free internet service is provided in all libraries, except university libraries. There are also Chalerms Rajkumari libraries and other public libraries, while many higher education institutions are also developing e-libraries and living libraries (Aree and Fitzgibbons 1999).

Another genre of informal education is the Annual National Book Fair and Bangkok International Book Fair which attract thousands of visitors. From March 29 to April 10, 2016, Thailand hosted the 43rd National Book Fair and 14th International Book Fair. This visionary idea was initiated by M.L. Manich Chumsai in 1972.

4.2.2 Levels of Education

4.2.2.1 Basic Education

In accordance with the 1999 National Education Act and additional government policy, 12 years of free basic education was made available to students throughout the country for the first time. In 2009, this was extended to 15 years of free education to cover preschool as well. Preprimary education is provided to children at ages 4–6 by local authorities and some of the kindergartens in primary schools. The current compulsory education requirement covers 6 years of primary and 3 years of lower secondary education. Children are expected to be enrolled in basic education institutions from age seven through the age of 16, except for those who have already completed Grade 9. Basic education is provided before higher education by the following institutions:

- Early childhood development institutions, i.e., childcare centers, child development centers, initial care centers for disabled children or those with special needs, and early childhood development centers operated by religious institutions or by other agencies; schools such as government schools, private schools, and those under the jurisdiction of Buddhist or other religious institutions

- Community learning centers (CLC), i.e., those organized by nonformal educational agencies, individuals, families, communities, community organizations, local administration organizations, private organizations, professional bodies, religious institutions, enterprises, hospitals, medical institutions, welfare institutes, and other social institutions

4.2.2.2 Higher Education

- Higher education at the diploma, associate degree, and degree levels is provided by universities, colleges, community colleges, and other types of institutions such as the health colleges of the Ministry of Public Health. Associate degree or diploma-level higher education at the associate degree or diploma level requires 2 years of study and is offered by Rajabhat Universities, the Rajamangala Universities of Technology, state, and private technical colleges, as well as colleges of physical education, dramatic arts, and fine arts. The majority of courses offered are related to vocational and teacher education, while degree-level programs leading to a degree require 2 years of study beyond the diploma level, and 4–6 years of study for those who prior to entry into the program only completed upper secondary education or the equivalent.
- The first professional qualification is a baccalaureate, normally attained after 4 years of study. Five years of study are required in the fields of architecture, painting, sculpture, graphic arts, and pharmacy and 6 years for medicine, dentistry, and veterinary science. In some of these fields, additional study is required to allow for a practicum before professional qualifications are awarded.
- Advanced study of at least 1 but generally 2 years, combined with a thesis, leads to the award of a master's degree.
- A doctorate, requiring an additional 3 or more years of study following the master's degree, is awarded in some fields, while an advanced diploma or certificate, designed for students already possessing a degree or professional qualification, may be obtained after 1 or 2 years of course work.

Since the establishment in 1917 of Chulalongkorn University, Thailand's first tertiary institution, the number of higher education institutions has increased substantially, particularly within the past decade. There are currently 157 higher education institutions under the supervision of the Office of the Higher Education Commission and 94 specialized institutions under the charge of other ministries and agencies.

In addition, ten community colleges were established in accord with a government policy prescribed in 2001. The mentioned policy supported the establishment of community colleges in provinces where other opportunities for higher education were not available or limited, to offer the education and training necessary for economic and social development in those communities. Community colleges offer 2-year associate degree programs suitable for professional development in areas relevant to local economic and social development needs. Several curricula are currently offered in associate degree programs at community colleges.

4.2.3 *Organizational Structure and Providers of Educational Services*

Integral to the reforms of the 1999 National Education Act and the 2002 Bureaucratic Reform Act, the most important restructuring of the educational administration and management system was the merging of three agencies, namely, the Ministry of Education, the Ministry of University Affairs, and the Office of the National Education Commission, into a single Ministry of Education in 2003. That structure is indicated in Fig. 4.2. The Ministry of Education is responsible for promoting and overseeing all levels and types of education under the administration of the state as follows.

4.2.3.1 **Ministry of Education (MOE)**

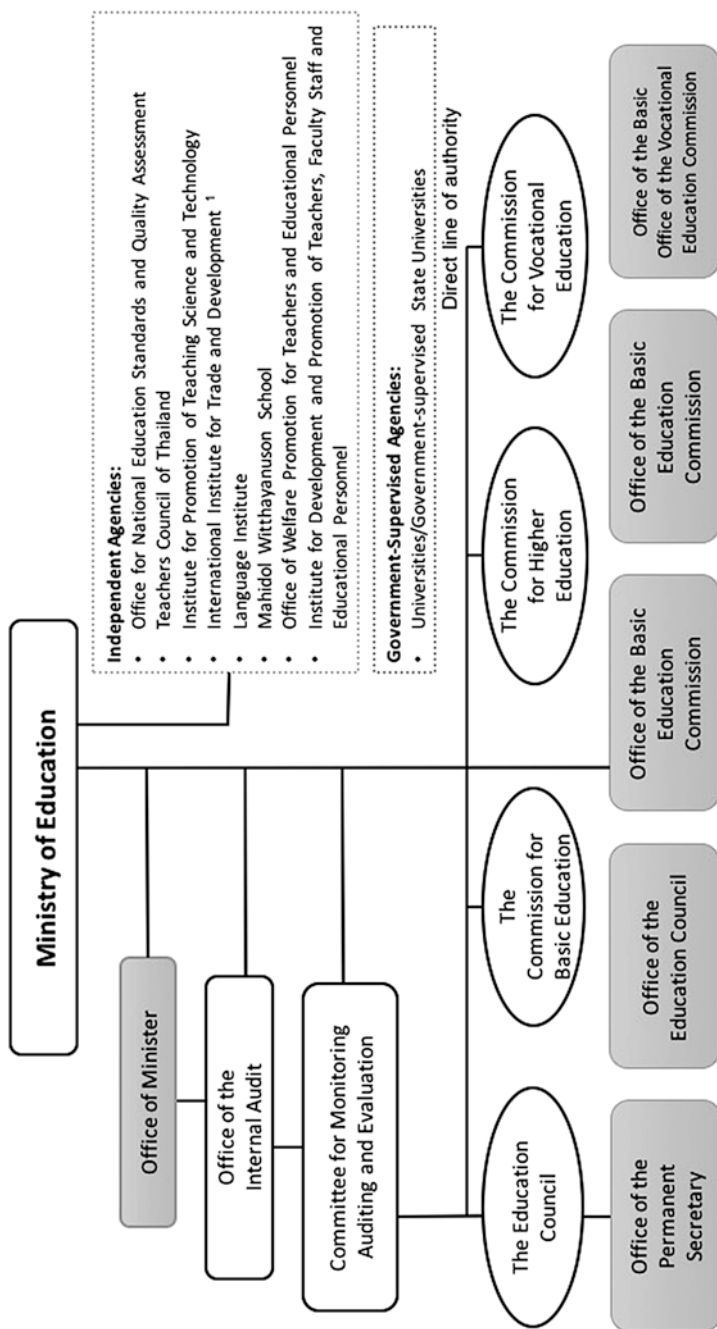
Office of the Permanent Secretary (OPS) The Permanent Secretary serves as the basic coordinating office of the Minister and Deputy Minister of Education that supervises education program operations, resource planning, and budgeting, and it oversees the following offices:

- Bureau of General Administration
- Bureau of Information and Communication Technology
- Bureau of Inspection and Evaluation
- Bureau of International Cooperation
- Bureau of Legal Affairs
- Bureau of Policy and Strategy
- Bureau of Scout Movement, Red Cross Youth, and Student Affairs
- Department of Non-Formal and Informal Education
- Office of the Private Education Commission
- Office of the Teacher Civil Service Commission
- National Institute for the Development of Teachers and Educational Personnel (NIDTEP), previously known as the Institute for the Development of Educational Administrators (IDEA)

In Fig. 4.2 there is inadequate space to list all of the above offices under the OPS.

Office of the Education Council (OEC) Under Section 14 of the Administrative Organization of the Ministry of Education Act 2003, it stipulates the following functions of the Education Council:

- Formulating the National Scheme of Education which integrates relevant aspects of religion, art, culture, and sport into all levels of education.
- Formulating educational policies, plans, and standards for implementation as prescribed in the National Scheme of Education.
- Proposing policies and plans for mobilization of resources for education.



¹Operating as a regional training center, the International Institute for Trade and Development was established by the Royal Thai Government and UNCTAD as a non-profit and independent organization

Fig. 4.2 Organization of the Ministry of Education at the central level

- Evaluating educational provisions in accord with requirements of the Scheme.
- Providing views or advice on legal matters as well as educational laws and ministerial rules and regulations. Furthermore, the OEC is required to provide pertinent views or advice to the Minister of Education or the Council of Ministers; it is also authorized to perform other duties as provided by the law or as assigned by the Minister of Education.

Office of the Basic Education Commission (OBEC) At the provincial level, the Basic Education Commission supervises education service areas (ESAOs) to serve as the ministerial linkage in the basic education between the nationwide central authority and local school operations. Currently there are 183 primary educational service areas and 42 secondary-level educational service areas responsible for approximately 35,000 schools.

Office of the Vocational Education Commission (OVEC) The Vocational Education Commission\ supervises more than 400 vocational institutions ranging from technical, commercial, and agricultural skill development and training.

Office of the Higher Education Commission (OHEC) (Formerly the Ministry of University Affairs, MUA, Prior to 2003) Responsible for the administration of higher education, the Higher Education Commission approves the degree program proposed by universities and their accreditation. The Higher Education Commission also works together closely with universities to allocate funding in terms of categorical grants in capital investment, faculty professional development, and international networking at the regional and at the global level. One of the main functions in recent years can be observed from its function as the regulator, as well as coordinators, on developing the Thai Qualifications Framework (TQF) to ensure that the skill development at universities can be compared across the institutions.

4.2.3.2 Local Administration Organizations

In accordance with the 1999 National Education Act, local administration organizations can provide education services at any or all levels commensurate with their readiness, suitability, and the requirements of the local area. The Ministry of Education prescribes criteria and procedures for assessing readiness to provide education services and assists in enhancing their capability in line with the policies and required standards. Additionally, the Ministry advises on the budgetary allocations provided by local administration organizations. The local administration organizations in Thailand can be divided into four main types: provincial offices, municipalities, district offices, and Tambol Administrative Organizations (TAOs). As of 2017 there were a total of 7852 local administration organizations. In decentralizing authority for educational provision from the Ministry of Education to local administrative organizations, some responsibilities not requiring assessment have already been transferred. These include tasks related to the supervision of subdistrict

libraries and preprimary child development centers as well as the procurement of educational materials and supplementary food items, such as milk.

4.2.3.3 Other Ministries

Other ministries are also responsible for providing education at various levels (often the higher education level) such as the Ministry of Interior, Ministry of Defense, Ministry of Culture, Ministry of Public Health, Ministry of Science and Technology, Ministry of Agriculture, and Ministry of Social Development and Human Security (see Chaps. 9 and 12). Whole chapters could be written on the educational services provided by these other ministries.

4.2.3.4 Private Sector

Educational Provision by Families Family-based early childhood development plays an essential role in education. Around 98% of the children aged 0–3 and 18% of the children aged 4–6 are cared for by families. Some families preferred to provide education for their own children even before the enactment of the 1999 National Education Act empowered families to provide basic education, whereupon the number of home-schooled children increased to around 400 families. While some families educate only their own children, their parents form groups and set up learning centers to provide education for children of their group. Currently, a number of schools allow these children to register as their students in order to maintain eligibility for further study. Also private corporations such as CP and The Nation have established universities (see Chap. 9).

Nongovernmental Organizations Both local and international nongovernmental organizations make a major contribution to the provision of basic education. For example, several agencies, such as the Child Development Center and the Council of Early Childhood and Youth Development, help provide nonformal preprimary education. Another example is the contribution of the Duang Prateep Foundation, established in 1978 and officially registered as a charity in Thailand (Kanogvan 2010). Its project on education covers kindergarten programs, a special school for the hearing impaired and education sponsorship. The Foundation now supervises 11 kindergartens in Bangkok slums and is viewed as the model in founding community kindergartens in slum areas. Thus far, the Duang Prateep Foundation has assisted in setting up 15 kindergartens in other slum areas, as well as in poor villages in the Northeast. The kindergartens are administered by locally elected community councils, and the Foundation's role is a supportive and advisory one.

Educational Provision by Private Educational Providers The state is responsible for overseeing administration and management as well as for monitoring the quality and standards of private educational institutions, both those providing general edu-

cation and those offering vocational education. At present, most private institutions are proprietary schools, with a few prestigious institutions (*rongrian farang*) (โรงเรียนฝรั่ง) such as Assumption College and Mater Dei managed by religious denominations. In recent decades there has been a rapid growth in private international schools (see Chap. 11). To some degree, the ministry also supports these private providers through, for example, professional development grants to schools and healthcare service providers.

4.3 Change in the Structure of Educational Decentralization (in March 2016)

As noted above, there are many diverse providers of education, not just the Ministry of Education, and a key principle of the NEA of 1999 was “all for education.” On March 21, 2016, using Article 44, the government announced a new policy of decentralization shifting the focus to the provincial level. Subsequent to the promulgation of this new policy, 77 provincial education committees (PECs) and 77 provincial education officers were appointed.

This new structure presents both challenges and opportunities. Certainly it is a response to the perceived ineffectiveness of many ESAs, and it also provides a mechanism for implementing the area-based education (ABE) approach that has been promoted by the QLF and TRF and has been introduced on an experimental basis in 14 provinces (Chuachan and Aroonsi 2013). A key principle of ABE is to strengthen coordination among the diverse educational providers in each province with universities playing a significant mentoring role and orchestrating action research to promote the improved quality of education and reduce inequities.

The effectiveness of this new structure and system depends heavily on three factors: First is the extent to which the central MOE genuinely devolves power and authority to the PECs. Second is the quality of leadership at the provincial level. Third, in terms of evidence-based leadership and decision-making, to what extent will the new PECs and local provincial leadership draw upon the ABE model? The worst case scenario is that the PECs simply become larger ESAs preoccupied with managing MOE schools resulting in a *recentralization* at the provincial level. The best case scenario is that many provinces, as demonstrated in the ABE project, become creative and dynamic in mobilizing diverse local resources to improve educational quality and reduce disparities. The following are inspiring and encouraging examples:

- Phuket established a local Education Foundation to raise funds to support education.
- Chonburi, with strong private sector involvement, implemented a curriculum improvement program in 500 schools to provide a better-skilled workforce for its increasingly industrial economy.

- In Chiang Mai, Surin, and Phuket, local administrations (under MOI) made significant contributions.

Local universities played an important role in providing valuable assistance to disadvantaged schools (Chuachan and Aroonsi 2013).

4.4 Summary: Four Major Structural Changes and the Current Push for All for Education

There have four major structural changes in Thai education; each associated with a major education reform. The first was the shift from the traditional religious system when temples were the schools and monks were the teachers to a modern secular system as part of the major governmental reform program in the late 1800s of King Chulalongkorn the Great (Watson 1980; Wyatt 1969).

The second major structural change occurred in the late 1970s after the education reform program introduced after the student revolution of 1973. The structure changed from a 7-3-2 system to a 6-3-3 system, and even more importantly the control of primary education was shifted from the Ministry of Interior to the Ministry of Education to achieve more unity of education.

The third structural change took place in 2002 as a result of the 1999 National Education Act (NEA) (ONEC 2003). This led to total restructuring of the Ministry of Education as indicated above in Fig. 4.2 with 4 key commissions replacing 14 departments, the MUA being dissolved and replaced by the new OHEC and ONEC moving from the Prime Minister's Office to be the OEC as one of the 5 major bodies of the new MOE. As part of the decentralization plan, 175 new local Educational Service Areas (ESAs) were created across the nation to serve local educational needs. These ESAs now number 225.

The fourth and most recent structural change took place in March 2016 in which the decentralization strategy shifted to make the province the center of decentralization efforts and to emphasize coordination and integration across diverse stakeholders, not just OBEC entities (see Chuachan and Aroonsi 2013; MOE 2016).

Related to this last structural change and an important aspect of the current educational system is its remarkable diversity with a wide range of entities providing educational services beyond the Ministry of Education. There is a renewed emphasis on implementing the important theme of the 1999 National Education Act that is "all for education." For Thailand to achieve its educational potential and to move beyond the "middle income trap," it is imperative for all stakeholders to work together creatively and effectively (the royal family and its foundations, MOE and other ministries, local government organizations, the private sector, families, NGOs, and international agencies/donors) to improve the quality and equity of Thai education across the board.

Appendix: Key Indicators and Statistics

Table 4.1 Number of students in basic education categorized by agencies in 2013

Level of education	Total	MOE	Others
Preschool	2,734,911	1,566,815 (57.28%)	1,168,096
Primary	4,903,579	4,382,891 (89.38%)	520,688
Lower secondary	2,375,996	2,173,831 (90.0%)	202,165
Upper secondary	2,136,984	2,042,440 (95.57%)	94,544
General	1,437,955	1,350,869 (93.94%)	87,086
Vocational	699,029	691,577 (98.93%)	22,383
Total	11,013,470	10,165,977 (92.30%)	1,985,493

Source: Office of the Education Council (2015)

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Chapter 5

Preschool and Primary Education: Thailand's Progress in Achieving Education for All



Sheldon Shaeffer

Abstract Despite the government's rhetoric in support of Education for All (EFA) – especially its goals on Early Childhood Care and Development (ECCD) and universal primary education – the EFA framework never became an integral part of planning within the Ministry of Education. Ministers (and therefore priorities and policies) change frequently, and the Ministry's structure is fragmented with unclear chains of command and piecemeal reforms. Enrolment in ECCD services is high (although inequitably distributed), and the professionalism of their personnel has been enhanced, but the “architecture” of ECCD provision is complex, with multiple pathways and providers, teachers with different qualifications, and diverse methods and curricula. Given Thailand's development status, the NER of primary education (93%) is problematic as are the disparities among wealth quintiles; the continued disadvantage of remote, ethnic, and migrant communities and children with disabilities; and the system's poor performance in international assessments. These problems derive from the low capacity of teachers trained more in content than in pedagogy; inequality in teacher deployment; weak implementation of child-centered learning, mother tongue-based education, and multigrade teaching; and the problem that principals see themselves more as civil servants than instructional leaders. Despite the large percentage of the national budget spent on education, many challenges remain: inequitable, inefficient, and ineffective financing, weak school-based management, incomplete decentralization, and the need for a more visionary and quick-acting bureaucracy able to ensure that students gain both the hard skills needed for a competitive, technology-based, globalized future and the “soft,” transversal skills essential for development while at the same time retaining the nation's sociocultural uniqueness and diversity:

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Fig. 5.1 Happy Thai students at Ban Madkanokthakumpun School, Prang Ku District, Si Sa Ket Province (thier school is in a remote Isan province bordering Cambodia) (see Soemsak 2009) (Photo courtesy of Khun Khru Kwanpirom Sombat)



The Thailand Development Research Institute sums up the fundamental shortcomings of our [education] system well: a lack of accountability and an outdated curriculum and related teaching methods. It concluded that no one in the education administration feels responsible or is concerned about the state of our education system, and this lack of concern reflects a lack of accountability. (Pichai 2014)

Despite such serious problems, there is an important bright side to Thai education. According to the 2012 PISA results, “top performing countries like Republic of Korea, Estonia and Finland attained low scores on the happiness indicator while the lower performing countries such as Indonesia, Peru and Thailand [over 95%], topped the list by having the happiest students” (UNESCO Bangkok 2014) (see Fig. 5.1).

5.1 Introduction

Thailand played an important role in the development of the global movement toward Education for All (EFA). It hosted the launch of the movement at the World Conference on Education for All in Jomtien, Thailand, in March 1990 – a conference officially opened by Her Royal Highness Princess Maha Chakri Sirindhorn. This conference began the process and established the mechanisms which led to a large number of national EFA action plans and development agency EFA initiatives. These were subsequently reviewed (with somewhat disappointing results) at a mid-decade assessment of progress held in Amman, Jordan, in 1996. The EFA movement was then revised and reinvigorated at the World Education Forum in Dakar,

Senegal, in April 2000, assessed over a decade later at a high-level meeting again held in Jomtien in March 2011 (and again opened by Her Royal Highness), and then more recently, at the World Education Forum in Incheon, Republic of Korea, in May 2015, evaluated, reformulated, and refocused to better link with the new set of Sustainable Development Goals endorsed by the General Assembly of the United Nations in September of that year.

Despite this public, visible involvement with EFA, Thailand itself has not always taken the EFA framework very seriously. National EFA plans have been developed and periodically reported, and high-level officials have usually attended the annual launch of the EFA Global Monitoring Report, but the EFA framework itself never became an integral, essential part of discourse or planning within the Ministry of Education.¹ This has been due to a number of reasons:

- The responsibility for EFA was given to the UNESCO National Commission within the Ministry of Education rather than to a line Commission/Directorate General; this led to a weak sense of ownership of EFA within the Ministry.
- The frequent change of ministers of education (20 in the last 17 years) (see [Appendix I](#)) led to changing priorities which were not easily integrated into the EFA framework.
- Thailand's middle-income status and its belief that it had largely achieved universal primary education (despite empirical data to the contrary) – which, as in many countries, was considered to be the major target of EFA – led the MOE to focus more on issues such as technical and vocational education and training (TVET), higher education, and English language teaching rather than the other EFA targets.
- The MOE structure itself is fragmented with organizational tensions within the bureaucracy, unclear chains of command, only piecemeal and occasional efforts for system reform, and too many competing players with their own special interests.

This is not to say, however, that Thailand has not been committed to achieving some of the individual EFA targets, but this commitment has not generally included longer-term, sustained interest in planning and regularly assessing progress toward the comprehensive EFA framework.

The sections below focus on Thailand's achievements of the EFA goals which have received more attention within the Ministry – as formulated in Dakar:

- Goal 1: Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children

¹ Soon after the Dakar conference, when a minister of education of Thailand, who was chair of the Southeast Asian Ministers of Education Organization (SEAMEO), was requested to include EFA on the agenda of the annual meeting of ministers, he refused saying that it was not an important enough issue for discussion.

- Goal 2: Ensuring that by 2015 all children, particularly girls, children in difficult circumstances, and those belonging to diverse ethnic communities, have access to and complete free, and compulsory primary education of good quality

Of particular importance with respect to these two goals is the emphasis on vulnerable and disadvantaged children. This is especially salient in Thailand where disparities of many kinds are common, labeled in a recent report as the second most inequitable nation in Asia (Tanyatorn 2014). In terms of socioeconomic disparities, 12.6% of the population is said to live below the poverty line with 0.1% of the population owning nearly half (46.5%) of the country's total assets; children from the richest decile of the population have 16 times more educational opportunity than those from the poorest (NESDB 2014; NESDB study 2014); and the bottom 10% of households earn an average of 4300 baht per month, with the top 10% earning 90,000 (Thailand Future Foundation 2014). The Gini coefficient, a common measure of inequality, for Thailand is a high 48.4, making Thailand the world's 24th most unequal country (out of 145 countries assessed) (United States 2017).

There are several other kinds of vulnerability and disadvantage in Thailand:

- *Ethnic/linguistic status*, including the so-called hill tribes (Lewis and Lewis 1984) which, due to remoteness, poverty, language, and often the lack of citizenship (e.g., approximately 300,000 stateless children), leads to fewer educational opportunities (Office of Welfare Promotion, Protection, and Empowerment of Vulnerable Groups 2009). Soemsak (2009) did an extensive study of the educational disadvantages faced by students in remote provinces bordering Cambodia. He found that there were serious access issues in these regions. Access and quality problems are related to large numbers of small remote schools, poverty, and the linguistic diversity of students. He found diversity in this region different than that in the Islamic south. Songsiri's (2013) recent study examining the situation of Muslims in Thailand found that Islamic school development was obstructed by political unrest. She also identified a need to improve secular curricular content and to have more integrated, meaningful religious teaching to foster greater academic excellence in the Muslim region.
- *In-migration*, with some 300,000 children of international migrants living in Thailand, only approximately 30% of whom are enrolled in schools or learning centers (Jitsiree and Jeerawat 2015). Draper and Peerasit note how few of these children reach higher levels of education:

Of these, 5% attend unaccredited learning centers, and only approximately 35% attend mainstream schools. Of those in Thai schools, 30% are in kindergarten, 67% are in primary school, 3% are in in lower secondary and less than 1% reach upper secondary school. The lower levels of enrolment at higher grades suggests children drop out and enter the labor market, both legally and illegally, within Thailand, in the country of their parents' origin, or in a third country. (Draper and Peerasit 2015)

- *Out-migration* of Thai parents (both to Bangkok and overseas) and its impact on the health, nutrition, and educational achievement of some 3,000,000 children (21% of the entire age group) living with neither parent; only 48.7% of children

from families in the poorest quintile live with a parent compared to 72.4% of children in families of the richest quintile (UNICEF 2012).

- *Disability*, with only 18.3% of some 1,900,000 people under the age of 30 with either a physical or learning disability studying in education institutes (Office for National Education Standards and Quality Assessment 2015 quoted in Dumrongkiat 2016), leaving many others still invisible or included neither in school nor in special learning facilities.
- *Other vulnerable children*, including many still affected by HIV and AIDS and the children of imprisoned drug offenders; many of the latter (e.g., 10% in the northern district of Mae Fa Luang) are also affected by drugs (King-oua 2015).

5.2 Preprimary Education in Thailand²

Objective 1: All-around and balanced human development serving as a foundation of overall development...all children aged 0-5 will receive a preprimary development program for readiness in all aspects before entering the education system. (Office of the National Education Commission (ONEC) 2003)

Once in kindergarten, many of the youngsters find that their carefree days, for all practical purposes, are over. It's now study, study and study some more. Many parents...put their children in tuition schools just so they don't fall behind their classmates and also to improve their chances of successful entrance into the first grade. Imagine that – children must face the horror of preparing for an entrance exam at the tender age of six! (Wasant 2015)

Partly as a result of attempts to achieve EFA Goal 1, but even more so because of ever-clearer research evidence from many fields – health, nutrition, education, child protection, and, more recently, the science of early brain development – the world is increasingly recognizing the importance of early childhood development and consequently of good quality Early Childhood Care and Development (ECCD) programs, especially, as Goal 1 states, for “the most vulnerable and disadvantaged.” Such programs are important not only for promoting the child's own holistic development but also for increasing the efficiency and effectiveness of education systems and ultimately for enhancing broader social and economic development. As a result of this greater awareness of the importance of ECCD, the world has moved from a 26% gross enrolment ratio in preprimary programs in 2000 to 54% in 2012 (UNESCO 2015a, b).

Thailand has a long history of concern for child development. In 1892 and 1893, kindergartens were built for princes and princesses. A few years later, Princess Saisawalee Pirom established a center for orphan care. Over time, this type of pre-

²Some of the section below is derived from *Education Review and Recommendations: Final Report Submitted to the UNICEF Thailand Country Office*. Hoa P. Tran Ringrose and Sheldon Shaeffer, March 2014, and *The Demand for and the Provision of Early Childhood Services since 2000: Policies and Strategies*. Sheldon Shaeffer. Background paper prepared for the Education for All Global Monitoring Report 2015.

schooling shifted gradually from only private kindergartens for elites to those serving the general public primarily in urban areas but also in some provincial areas (Chantana 2014). Eventually in 1955, the International Institute for Child Study, affiliated with UNESCO (Philp n.d.), was established. It later created its first long-term plan for child and youth development in 1979. More detailed policies were developed in 1992, again in 2002 in the context of its post-Dakar Education for All plan, and most recently in the long-term plan and strategy for Early Childhood Care and Development (0–5 age group) in 2007–2016. All of these policies have emphasized the nurturing of children to promote their comprehensive development – physical, emotional, mental, social, moral, and ethical – and the creation of social awareness of the importance of lifelong education from birth. The current plan calls for children aged 0–3 to be cared for primarily in their families, with assistance as required (such as parent education programs, health and nutrition interventions, and home- and community-based daycare programs for children of working parents), and children aged 4–6 to be encouraged to attend some kind of ECCD service. The goal of this plan is supported by data which show that children attending an early childhood development program have higher rankings in the Early Childhood Development Index compared to those not attending, at 94% versus 77% (UNICEF 2012).

The definition of preprimary ECCD services in Thailand is somewhat fluid, meant to cover 3 years for children aged 4–6 through a variety of formal, non-formal, and informal programs and institutions including nurseries, childcare centers, preschools, and kindergartens. Several ministries and dozens of agencies, both public and private, offer these kinds of services – in theory coordinated by a National Committee on Early Childhood Development.³ These include child development centers, many run by the Department of Social Welfare under the Ministry of Social Development and Human Security or by subdistrict authorities under the Department of Local Administration (DOLA) within the Ministry of Interior, and more formal kindergartens managed by the Ministry of Education itself. Children can either move directly from the former to a primary school or begin in the former and go to more formal kindergartens for 1–2 years before enrolment in Grade 1. Similar centers and kindergartens are also sponsored by private providers. There is severe competition to enter some of the prestigious private preschools which can facilitate access to elite basic education.

5.2.1 Trends in Access and Provision

Coverage of children by ECCD services in Thailand is impressive, especially for older children. According to UNICEF Thailand, in 2013, over 900,000 children attended daycare centers of DOLA (some 39% of the age group 3–5). Another

³This Committee's mandate expired in 2014, and a decision on establishing a new Committee, at the time of writing, is pending with the Minister of Education.

Table 5.1 Enrolment in preprimary education in Thailand

Age group 4–6	Gross enrolment ratio (GER) in preprimary education (%)		Net enrolment ratio (NER) in preprimary education (%)		Enrolment in private institutions as % of total enrolment
	Total	GPI	Total	GPI	
1999	91	1.00			19
2012	119	0.98	93	0.98	23

1.8 million children (58% of the age group) attended kindergartens – by far (89%) most in kindergartens coordinated by the Ministry of Education, both of the Office of the Basic Education Commission and of the Office of the Private Education Commission with the remainder in schools run by DOLA, the Bangkok Municipal Administration (BMA), and, for border areas, the Border Police (personal communication). The Ministry of Social Development and Human Security also runs separate centers for children of poor families, disabled children, and orphans. To support such enrolment, the government provides a free-education subsidy of 1700 baht a year to all kindergarten students and is considering making kindergarten compulsory and universal (Lamphai 2015a).

Table 5.1 (UNESCO 2015a, b) shows a growth in the GER in preprimary education (for children aged 4–6) from 1999 to 2012, with adequate gender parity and almost one-quarter of the children enrolled in private institutions. Other 2012 data show that nearly 93% of children aged 4–5 years attend an ECCD program (UNICEF 2012).⁴ As a result, almost 100% of children enrolled in the first year of primary school attended some kind of preschool.

But some problems of coverage remain. There are many fewer children in programs for children aged 0–3 with 13% of this age group, or 390,000 children, considered to have inadequate care, usually within their families, and only 55% of non-Thai children (i.e., of migrant and refugee families) aged 4–5 attend ECCD programs (UNICEF 2012).

Related to the major problems of coverage at the nursery school level (ages 0–3), Nanchanok Wongsamuth, an investigative reporter of the *Bangkok Post*, recently published a case study of the access of children to nurseries and preschools in the Ruamrudee low-income community near the center of modern Bangkok (see Fig. 5.2). Unfortunately, nurseries are not covered in the 15 years of free education. There have been drops of enrolment in nurseries because of hard economic times and the inability of low-income families to afford nurseries. Even though fees are “low,” ranging from 300 to 2500 baht per month (the minimum wage is 300 baht per day), this can be a problem for the poorer families in the community. Nanchanok also reports on concerns about children being abused in some nurseries and the lack of adequate monitoring of unregistered private care facilities (Nanchanok 2015a, b).

⁴However, the 2014 Ministry of Education report on EFA Goal 1 achievement (Office of the Education Council 2014) indicated that in 2011, 99% of children aged 3–5 attended preprimary institutions. Presumably this is administrative data derived from school questionnaires as opposed to the household data of the Multiple Indicator Cluster Survey of UNICEF.



Fig. 5.2 Bongai Preschool (in the Ruamrudee community in Bangkok) serving the children of parents who mostly live in nearby construction camps who tend to come and go (Photograph courtesy of Post Publishing PCL)

With Thailand currently having the world’s lowest unemployment rate (The Economist 2018), the parents of these low-income families normally have low-paying jobs in the service sector and critically need childcare for their young children. Also in this community, there are growing numbers of migrant workers whose children also need childcare.

In summary, Thailand’s achievement in access to ECCD services is impressive – with even more ambitious goals for 2016: universal ECCD coverage, 90% of all 0–6-year-olds developing in accordance with their age, and all 6-year- or 7-year-olds enrolled in Grade 1. But the “architecture” of ECCD provision is very complex, with multiple pathways and a large variety of service providers employing teachers of different backgrounds and qualifications, using different methods and delivering different curricular content. This means that children enter primary school with a wide range of ECCD experiences behind them – and still some, unfortunately, with none.

5.2.2 *The Quality of Preprimary Education*

Preschoolers in Thailand have been force-fed academic content, which in turn affected their creativity and development and forced them to miss a chance to learn during the ‘window of opportunity’...many were overwhelmed with academic content, as from kindergarten they had to study at tutoring school because their families wanted them to pass entrance exams to prestige elementary schools....they became stressed and were slower in terms of intelligence, analytical thinking, creativity, language proficiency, overall adjustment, teamwork, curiosity to learn, and responsibilities to self and others. (Kawin and Amanet 2015)

Although as seen above the extent of ECCD provision is admirable, the quality of this provision is more in doubt. According to ministry regulations, preschools should operate 7 h a day and 5 days a week with a child: staff ratio of 15:1. Teachers are expected to have a 5-year undergraduate degree, preferably in early childhood development, and be licensed by the Teachers Council of Thailand. Some in-service training is also meant to be provided. In terms of salary (a starting rate of 15,000 baht per month), preprimary teachers have achieved equivalency with primary school teachers. In 2008, the Cabinet appointed a National Committee on Early Childhood Development in an effort to improve the quality of this important level of education (Thai National Commission for UNESCO 2015).

But UNICEF data showed, that in 2012, 20% of ECCD centers were considered to be of poor quality, understaffed, and poorly equipped (UNICEF 2012). The ministry also sees many remaining challenges: an undersupply of qualified teachers, inadequate teaching and learning materials, poor working conditions, and, for many teachers in less prestigious private schools, unstable and unattractive contractual arrangements. And although the rhetoric and the written curricula for preschools are age-appropriate, play-based, child-centered, and holistic, there is constant pressure, especially in more urban areas and among middle-class and upper-class families, for more academic content, including literacy in both Thai and English.

5.2.3 *Achievements and Continuing Challenges*

Thailand has shown some progress in expanding its ECCD services over the last 15 years though expenditures on preschool education (as a percent of GDP) have shown ebbs and flows. During the populist period of Thaksin, 2000–2006, expenditures were relatively high. After a large drop in 2008, there have been increases since 2010 (see Fig. 5.3). Both the demand for and supply of these services have increased. This is true for several reasons. First, though the extent of official government decentralization has been limited in Thailand despite rhetoric to the contrary, many policies and strategies to promote ECCD have focused on lower levels of the system, including:

- Greater budget allocations for ECCD at local levels based on a better understanding of the need for such investments
- More home- and community-based centers, especially for children aged 0–3
- Special economic and social support programs for disadvantaged communities and local organizations (Sirindhorn 2013a, b)
- Tax measures to provide incentives to create ECCD centers
- Support to local administrations to transfer the provision of ECCD services from public agencies to local organizations and the private sector

Second, systematic attempts to enhance the visibility and public awareness of ECCD programs have also been carried out – supported by campaigns and media such as posters, radio and TV, and CD-ROMs – focusing on parents, guardians,

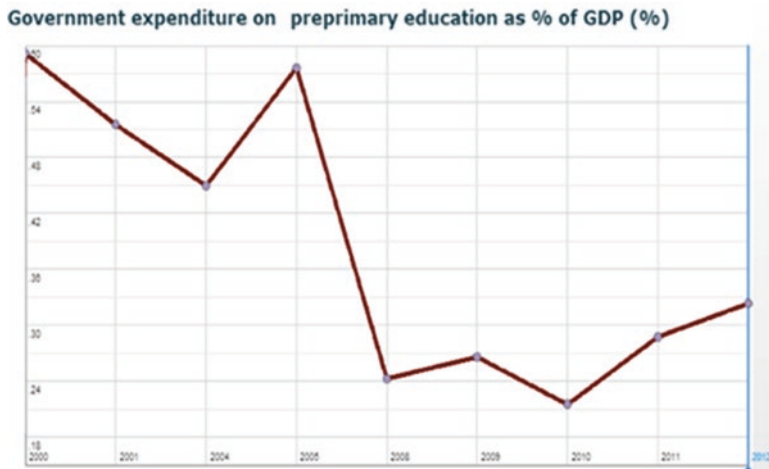


Fig. 5.3 Government expenditures on preprimary education (as a % of GDP) over time, 2000–2012 (Source: UIS 2015)

newlyweds, pregnant women, teachers, childcare providers, medical and health personnel, and community and local leaders in order to enhance the knowledge and skills related to responsible, warm, and caring child-rearing.

Part of this greater awareness has been a better understanding of what quality ECCD looks like. Despite the overly formal and labor-intensive assessment procedure of the Office for National Evaluation Standards and Quality Assessment (see below), it has made more visible the indicators of good ECCD programs, and more specific child development standards, guidelines, and evaluation methods which parents and childcare providers can use have also been developed. The professionalism, remuneration, and welfare for childcare providers and preschool teachers have also been improved. Such improvements are reflected in the achievement gaps between those who have had preschool education compared to those who have not. In 2003, 15-year-olds with preschool education scored 27 points higher in mathematics than those without such early education (OECD-UNESCO 2016). But in 2012, those with preschool backgrounds scored 54 points higher (OECD 2013). This is a further illustration of the important benefits of investing in preschool education (Heckman and Masterov 2007; Yoshikawa et al. 2013).

Strategies to overcome cultural and contextual constraints have also been promoted, including the development of ECCD parent associations, especially for families of children with special needs, the contribution of parents to the administration and management of ECCD centers, the expansion of the role of ECCD institutions to serve as resource centers for the community, and, in a few areas of the country with diverse ethnic communities (Malay areas in the South, non-Thai ethnic communities in the North and Northeast), the development of mother tongue-based multilingual education programs starting with kindergartens.

Despite these important strides in the provision of preprimary education, formal and informal, public and private, there are still many challenges to be faced:

- Beyond the issue of access to ECCD services, there is still a lack of understanding of the importance of holistic ECCD, what it should include, and its connection with subsequent education levels. As mentioned above, parents and other caregivers continue to have mistaken expectations that their children attend an ECCD center or a kindergarten in order to get an “early primary education” rather than to attain more holistic development. Thus, there remains a strong focus on rote learning even in preschools with little encouragement to develop thinking abilities or self-expression but rather strong pressure to read, write, and count. Inadequate and inconsistent methodologies applied across the variety of ECCD providers – public and private – and different ministries within the public sector further reinforce this misconception.
- Despite some progress in this regard and the desire to achieve parity with primary school teachers, the qualifications and/or skills of caregivers in ECCD services remain generally low.
- With some exceptions (and the number of these does continue to grow), there remains a lack of ECCD services provided for the vulnerable and disadvantaged – e.g., in mother tongue, for children with disabilities, and in more disadvantaged regions of the country. For example, although the Ministry of Education is making quite serious attempts to expand special education programs, including those which attempt to include children with disabilities in regular schools, such programs do not generally begin in preprimary programs.
- As in many sectors of Thai society, there is an overemphasis on formal certification rather than genuine capacity development, and an overly complex assessment process, quite special to Thailand, which mandates, through the Office for National Education Standards and Quality Assessment (ONESQA), a rigorous and regular assessment of every academic institution in the nation and therefore implicitly stresses evaluations of quantitative indicators.⁵
- Finally, there is a general lack of interest or initiatives in establishing seamless linkages across ECCD programs and age groups, including primary school. Although Thailand is a good example of serious and long-term commitment to ECCD and of explicit attempts to meet demand for ECCD services, its case does highlight one puzzling (but not unusual) dilemma. Although preschools are theoretically considered part of basic education, transition issues around education for children aged 4–6, including ECCD centers and kindergartens, are almost completely neglected by the Ministry of Education. There is therefore little attempt to promote the concept and practice of a seamless, coherent “early learning” continuum for children aged 3–8, from ECCD centers through preschool and to the first years of primary school.

⁵A study by the Quality Learning Foundation, disputed by ONESQA, reported that most Thai teachers spend 84 days out of 200 in school year (42%) on activities outside the classroom, including 43 days on external evaluations of which nine were based on ONESQA requirements (Inthathep 2015b).

5.3 Primary Education

More than half of the latest batch of military conscripts were found to be drug users or small-time dealers, along with a high level of illiteracy, to the dismay of the 2nd Army Regional commander:

Each year thousands of conscripts are recruited into army service. Some of them can neither read nor write. They only know how to sign their names. I earlier thought that the current education system was unlikely to produce people who remain illiterate. But there remain considerable numbers of them. (*Bangkok Post*, February 2, 2014a, b)

Depressing reports about education in Thailand fill the newspapers – students do lower than average on national examinations at all levels, especially in English, mathematics, and science; they fail (get less than 50% correct) in six of seven subjects in the annual university entrance examination; their performance in international examinations (e.g., PISA⁶ and TIMSS) continues to disappoint; and, as we have seen, many vulnerable and disadvantaged children remain excluded from school and also from learning – this all even though as a percentage of its national budget, Thailand spends more on education than virtually any other nation in the world.⁷ This paradox is perhaps partly explained by the focus of even many pre-school programs on rote learning and academic success. But a larger part of the explanation must have its roots in the real beginning of formal education in Thailand – at the level of primary education – and tension over the real objective of this education between ensuring mastery of literacy and numeracy and therefore of successful later learning and promoting a range of civic, religious, moral, and even nationalistic values being emphasized by the current military government (see Sect. 5.3.5).

5.3.1 Trends in Access and Provision

Again, this is mostly a problem with numbers and inconsistent data. As seen in Table 5.2, in 2012 the net primary school enrolment rate was just over 93% (UNESCO Institute of Statistics 2014) – although UNICEF data put the figure at 96% – but this still means that many hundreds of thousands of children of primary

⁶Like other countries in the region, Thailand’s Ministry of Education, ignoring the debate as to the advantages and disadvantages of international comparative tests such as PISA, has taken action specifically to “teach to the test” – to increase PISA scores with strategies to raise the awareness about PISA among junior secondary level students, establish PISA test banks, create practices to improve critical thinking and math/science skills, develop proficiency tests on reading and writing, provide assistance to schools which scored badly in the 2012 test, and strengthen monitoring and evaluations as a tool to develop students (Inthathep 2014).

⁷A recent National Education Accounts study indicated that in 2013, the total spending for education was 6.4% of GDP (or 20% of the national budget) with over 80% devoted to salaries and administrative costs and only 5% to improving the quality of education (*The Nation*, May 12, 2015b and Punyasavatsut et al. 2015).

Table 5.2 Enrolment in primary education in Thailand

Age group 7–12	Gross enrolment ratio (GER) in primary education (%)		Net enrolment ratio (NER) in primary education (%)		Enrolment in private institutions as % of total enrolment
	Total	GPI	Total	GPI	
1999	97	0.97			13
2012	93	0.98	93	0.98	21

school age (according to UNESCO, some 586,000 children) remain out of school (*The Nation*, March 10, 2015a). This makes Thailand 1 of the 15 countries in the world which together account for more than half of the world's out-of-school primary school-age children. Gender parity has largely been achieved at this level,⁸ but the percentage of children enrolled in private schools has increased considerably since 1999 to almost 25% of the primary age population. Although some of these are elite, urban, and even international and bilingual schools, many of them are of lower quality and offer only low-paying positions to the surplus of teachers unable to find work in the public sector.

A major problem of the system is “late” enrolment. Only 75% of children enter Grade 1 at the age of 6, which is understandable, given that it is earlier than the mandated age of 7 (OBEC 2014). Students can actually start at age 6 if they will turn 7 before the end of the calendar year or if they have already completed 3 years of preprimary school. Between the poorest and richest quintiles, 65.3% and 81.6%, respectively, of children aged 6 enter Grade 1; in Bangkok the figure is 83.2% compared to 69.5% in the poorer Northeast. The problem of “late” enrolment is evident in secondary school attendance. It shows that 34% of children in school at 12 years of age (at the beginning of the school year) are still attending school at the primary level (UNICEF Thailand n.d.), again to be expected given that the mandated age to begin primary school is 7. This means that many students start secondary school “late” often at age 13 instead of the more universal 12 years of age.

Such “late” enrolment has not traditionally been a major concern of the Ministry of Education (which has led in the past to controversial differences in the NER reported by the Ministry and the age-standardized data of the EFA Global Monitoring Report), but the problem is being treated more seriously now. In addition, of those children who enter Grade 1, almost 100% eventually reach Grade 6, and 99% of those who complete Grade 6 now continue on to secondary education. But while the official dropout and repetition rate is negligible at the primary level, it does become significant in secondary education. Thus, 2012 UNICEF data show that at the age of 13 years, 95% of students attend school, but at age 14 only 92%; at age 15, 81%; at age 16, 74%; and at age 17, only 61% (UNICEF 2012).

As with preprimary education, however, access to primary education is more difficult for vulnerable and disadvantaged children. According to the law, all individu-

⁸At the post-primary level, however, more girls are enrolled in lower secondary schools than boys – 74% vs. 68% in urban areas and 79% vs. 66% in rural areas – a trend that has not changed in recent years.

als have equal rights and opportunities to receive basic education provided by the state for a duration of at least 12 years (extended to 15 in March 2009 to cover preschool). Such education, provided on a nationwide basis, should be of quality and free of charge (Office of the National Education Commission 1999 and 2002). However, in practice not all students have the same opportunity to access quality education.

For children from diverse ethnic communities, remoteness and the lack of government support for mother tongue-based education are key factors explaining low enrolment. Many schools are too distant, especially for younger children, from remote island and mountain communities. And with some 76 languages spoken in Thailand (Lewis et al. 2015), the lack of a mother tongue-based education, limited to several schools in the South of Thailand teaching in Patani Malay and a few small projects elsewhere in the country, puts many children of ethnic and linguistic minorities at a great disadvantage, especially in the early grades where all instruction is provided only in standard Thai (see Chap. 15). This in turn results in their low achievement in subsequent grades and a higher level of failure. In 700 primary schools out of a total of over 800 in the 3 southernmost provinces, children speak primarily Patani Malay, but the school curriculum is taught in Thai, discouraging many from enrolling, resulting in poor learning achievement and leading students to dislike and/or leave school.

For children with disabilities, there are some efforts at the school level to accommodate their special needs, but many may still remain invisible and out of the school system. Despite estimates that the total number of children with disabilities in Thailand is significant, existing data collection mechanisms do not adequately include this group. According to an in-depth study conducted 2 years ago (Thai Education Foundation, personal communication), for example, approximately 3000 children with disabilities were found in one district alone – a number not at all reflected in the official data.

Of special concern, given the lack of accurate data, are children of migrants – both external and internal – and of displaced persons/refugees from other countries. As mentioned above, of the 300,000 migrant children in Thailand, mostly from Laos, Myanmar, and Cambodia, only about 30% are enrolled in schools or informal learning centers (Jitsiree and Jeerawat 2015) – this despite an open educational policy which is meant to allow migrant and stateless children to access basic education. This is due to several reasons: the lack of information about the policy, the costly annual registration for migrants to access social services, a shortage of teachers and of learning materials adapted to the needs and reality of migrant students, the hostile attitudes of some school administrators toward education provision for migrant and stateless children, a lack of self-esteem and understanding of the value of education and negative attitudes of some members of migrant communities toward Thai schools, their frequent move in search of work resulting in their children dropping out of school, and the problem that many migrants are illegal and therefore face the constant fear of being deported.

For the various groups of disadvantaged and excluded described above, HRH Princess Maha Chakri Sirindhorn has developed a number of special initiatives to

improve access to quality education for such individuals as well as prison inmates (2004, 2013a, b) (see Chaps. 1 and 12). Also the Duang Prateep Foundation has been active in helping to provide education to slum children in Bangkok (Kanogwan 2010).

Heckman (2006) argues that such initiatives and investments contribute to important skill formation. Such competency development is critical if Thailand is to escape the middle-income trap (Applegate 2013; Suehiro et al. 2015).

5.3.2 *The Quality of Primary Education*

Years ago, Thailand's education system was an example for other countries to emulate. The International Development Research Centre (IDRC) in Canada published an extensive mixed-method study of Thai primary education for broader dissemination globally (Amrung et al. 1990). Earlier than many governments in the region, the National Education Act (NEA) of 1999 manifested Thailand's commitment to ensuring basic free education of 9 years for all children, and a number of important progressive reform measures were elaborated with a view to improve the education system. As a result, the majority of schools in Thailand are well equipped, even in rural areas, and many of them do use the student-centered teaching methods emphasized in the NEA.

However, Thailand is also marked by considerable disparity not only in educational access (as mentioned above) but also in the quality of education (see Chaps. 13, 14, and 19). In terms of institutional quality, for example, in the third round of assessments of basic education by ONESQA, of 7985 schools evaluated, 1896 (24%) failed to meet the national standards – even worse than a similar review done by the rather less neutral Office of the Basic Education Commission of the Ministry which produced a figure of 17% (Fry and Bi 2013).

In terms of the quality of student outcomes, while students in Bangkok and well-developed urban areas fare reasonably well, the same cannot be said for those who attend more poorly equipped, remote schools. Ministry data in 2013, for example, indicated that around 127,800 students of Grade 3 had to have remedial classes to improve their reading skills; this included about 27,000 children (6.27%) who could not read at all (*Naew Na Online* 2013), and nearly half of 15-year-old Thai students fail to achieve proficiency in PISA assessments of functional literacy (Jimenez et al. 2013, p. 148).

Although school academic achievement is only one indicator of quality, the low results of Thai students in several international assessments (Table 5.3) are also a cause for concern. This is particularly disconcerting because Thailand invests a large percentage of its national budget in education and because Thailand has the experience of many years of education reform (Hallinger and Bryant 2013) – and also because Thai students spend on average 1000 h per year in a classroom compared to 800 h by students in OECD countries (although the average teacher only interacts with students 600 h per year) (*Bangkok Post*, March 29, 2015b).

Table 5.3 International assessments of student achievement

Assessment	Thai students' results
ONET (ordinary National Education Test)	The latest ONET results (2015) showed that the <i>average</i> scores of grade 6 students were lower than 50% in three out of eight subject areas, ranging between 35.1% (English) and 56.2% (vocational education). In Thai language, the average results were rather poor, only 44.7% (NIETS 2015, see Table 5.4). Children from poorest families and with disabilities often fare worse.
PISA 2015 (Programme for international student assessment)	Thailand ranked 54th in both science and mathematics and 57th in reading out of 72 participating countries, far behind Singapore and Vietnam (8th in science) and below the OECD average. PISA results also indicated serious disparities between students in Bangkok and rural areas, as also shown in previous PISA tests (OECD 2016).
TIMSS 2011 (test in mathematics and science studies)	In mathematics the average score of 4th graders was 458 out of the TIMSS average score of 500 and for 8th graders, 427. In science, the average score for 4th graders was 472 and for 8th graders, 461.
Knowledge of English	Thais have the lowest TOEFL scores in ASEAN. Thailand's rank in the English proficiency index is 55 of 60, compared with Vietnam's 28 and China's 34 (<i>The Nation</i> , February 11, 2014a).

Table 5.4 O-Net scores (Grade 6) 2015

Subject	Grade	Average Score
Thai	6	44.70
Math	6	37.85
Science	6	41.97
Social science	6	50.25
English	6	35.11
Health/physical education	6	51.95
Fine arts	6	45.24
Vocational education	6	56.19

Source: NIETS (2015)

Soemsak (2009), in an important and detailed empirical meso-analysis (Warr and Ng 1986), examined the quality of education (in terms of both access and achievement) in the peripheral areas of the seven provinces bordering Cambodia, namely, Ubon Ratchathani, Si Sa Ket, Surin, Buri Ram, Sa Kaeo, Chanthaburi, and Trat. Table 5.5 shows the O-Net 2015 scores for Grade 6 students for each of the seven provinces. As expected students in the disadvantaged lower Isan area had the lowest performance. These are the three provinces with the largest concentrations of Khmer-Thai whose mother tongue is Khmer Sung (high Khmer). Those in the Southeastern provinces near the dynamic Eastern seaboard ("Detroit of the East") showed the highest performance.

In addition, in the 2015 final year Grade 12 O-Net examinations, in only one subject (Thai) out of eight was the average score more than 50% – even though all of the students taking the test had successfully passed senior secondary school.

Table 5.5 O-Net tests in the seven provinces bordering Cambodia compared to other major regions of Thailand

Name of province	Average O-Net score, grade 6 (across 8 subjects)	Score compared to the average in Bangkok	Score compared to the average in Phuket (wealthy Southern area)	Score compared to the average in Korat, major industrial center and gateway to the Northeast
Ubon Ratchathani	41.93	-9.14	-6.39	-3.61
Si Sa Ket	43.22	-7.85	-5.10	-2.32
Surin	45.30	-5.77	-3.02	-0.24
Buri Ram	43.84	-7.23	-4.48	-1.70
Sa Kaeo	43.62	-7.45	-4.70	-1.92
Chanthaburi	48.37	-2.70	+0.05	+2.83
Trat	47.13	-3.94	-1.19	+1.59

Source: Raw data, NIETS (2015)

Beyond the low achievements that are measured by tests, there are also concerns about whether students in Thailand are being properly prepared for an ever-changing world of work. Meaningful “communication” between the education system and the labor market is not yet in place. Consequently, the products of the former often cannot be used by the latter. Many graduates receive degrees but do not have the skills needed in the workplace. The education system is still lagging behind the rapidly changing landscape of both the national and the regional labor markets. Academic achievement remains the main focus of the education system – and of individual schools – and there is little consideration of the demands of the labor market. As Krisda Utamote, director of corporate communications at BMW Group Thailand, has noted, “most graduates may not have basic skills adequate to the needs of the country – for example, practical command of the English language, communication, time management and behavioral skills” (Lefevre 2014).

To understand why the quality of basic education in Thailand is disappointing compared to its investments, it is useful to look at a number of aspects that have a direct relation to the quality of the education system including its students, teachers, the teaching-learning process, and school leadership (see also Chaps. 19 and 22).

5.3.3 *Students*

In addition to problems of poor health and malnutrition among young children, especially those from poor families, there are other problems which limit Thai students from obtaining the results the system desires. As we have seen above, although the national enrolment rate in preprimary programs is high, many children of disadvantaged groups do not attend such programs and therefore are not, in fact, “ready” for school. Children from diverse ethnic communities, especially those living in

remote areas, may struggle in starting Grade 1 in Thai rather than their mother tongue, and children with disabilities, although sometimes physically included in a classroom, are less often pedagogically included in learning.

Students also face many different types of testing – international and national, for both internal and external assessment – which create tension and affect students’ learning achievement. This pressure related to testing is not helped by the perceived importance of the 2000 or so tutoring schools (which take in some 6–7 billion baht in fees every year) which clearly help students of wealthier families “cram” themselves with the necessary facts needed to pass university entrance examinations (*Bangkok Post*, March 13, 2015a, b, c, d) (see Chap. 25). Such tutoring begins even at the preschool level, to ensure entry into prestigious primary schools, but can also lead to petty corruption especially when the child’s teacher is also the tutor. The head of tutoring schools reports that she has heard:

Stories from parents about how some teachers seem to favor the kids who take extra classes with them... Some even reveal the test questions before the exam so that the children studying with them get better grades, and therefore other kids will be tempted to join. (Napamon 2015a)

In addition, many children, especially from poor families, diverse ethnic communities in remote areas, and migrant families, are not always supported by parents, especially for continuing education at post-primary level due to the necessity of work to support the family and also due to the lack of understanding of child rights and the value of education. The low interest in learning is prevalent especially among boys, resulting in their lower achievement compared to girls. This is due to such variables as behavioral problems, a lack of learning skills and ability, a negative attitude toward learning, an unsupportive social environment, and low expectations for further education.

Effective learning is also influenced by the prevalence of violence against children. In 2013, according to the Ministry of Public Health, some 19,000 children were victims of violence, 70% of whom were involved in sexual harassment. Another study indicated that 50% of Thai children said they had experienced violent punishment by their parents, caretakers, or teachers (Napamon 2015b).

5.3.4 Educational Resources

Another factor affecting quality is the great disparity among schools with regard to education resources (see Chap. 14). Thailand is near the bottom of countries participating in the PISA in terms of equity in educational resource allocation. The practice of equal per-student budget allocations – not adjusted, for example, for remoteness, poverty levels, and school size – results in considerable inequity among regions and schools and means that big schools have many more resources and small schools, where more resources are needed to ensure education quality, have

barely sufficient means to function. Such a practice also does not take into account varying local conditions and contexts. Students in bigger, better endowed schools therefore fare better in learning assessments than those in smaller schools with fewer educational resources.

Schools also differ in their ability to raise supplementary funds from the local community depending on the wealth of the area where they are located. Tambon Administrative Organizations (TAOs), Thailand's major local units of governance (members are elected), vary considerably in their access to financial resources and also their commitment to education. The Bangkok Metropolitan Administration (BMA), for example, has access to extensive financial resources, while remote, small schools and schools attended by disadvantaged groups (migrant children, children from diverse ethnic communities) are often poorly resourced and equipped. As more and more migrant children arrive, existing classrooms cannot accommodate them, and many newcomers either study in poor conditions or are turned away. For these schools, learning materials are so limited that teachers often have to improvise and produce their own.

As for computers, small and remote schools face an even bigger challenge. Although the use of computers is now part of the official curriculum, most of the computers in remote and rural schools are too old to run many recommended applications, and in many places, there is only intermittent and often poor quality Internet connection. While first graders in most schools received tablets as part of the previous government's ICT in education program (i.e., one laptop per child), many schools in remote areas did not receive them. The program's second year saw large delays in procurement bidding and delivery, and more and more complaints about maintenance and the lack of useful software content were made until finally the current government quietly ended the program.

5.3.5 Curriculum

... for the past 50 years successive governments have disgracefully left millions of our children behind in a ramshackle educational system designed to bore the hell out of them. This is obviously a sinister attempt to create impressionable, programmable, pliable, vacant and obedient young minds that can easily be told what to think, instead of how to think. Every Thai government has failed to educate our children; they have always tried to indoctrinate them. ...Thai culture has an unhealthy obsession with producing subservient children, blindly obedient to the will of senior members of society. (Songkran 2015)

Curriculum reform is a frequent phenomenon in Thailand. The rapid turnover of governments, each with its own particular education policies, and the even more rapid turnover of ministers of education over the past decade and more, each with his (never her) own bias in terms of curriculum focus, are a major factor in this process (see [Appendix I](#)). Also important is what is seen as the need for the curriculum to respond to the rapid expansion of globalization and regional integration and,

with the current government's focus on reconciliation and harmony, the need to re-enculcate "Thainess." In the emerging AEC era, an overemphasis on "Thainess" can adversely affect relations with neighboring countries (Pavin 2005). This includes a revision of Thai history and a stronger emphasis on civic duty which is meant to focus on Thailand, its history and culture, Thai identify, the monarchy in Thai society, Thai ancestors, and Thai wisdom and culture⁹ and the promotion of 12 "core values"¹⁰— which must be recited (and even sung) daily by all schoolchildren in the country. The tenth of the core values is probably the most important locally, nationally, and internationally: the philosophy of the sufficiency economy promoted by HM King Bhumibol the Great (Draper 2015; Kavi 2015). This core value relates to sustainable development, a major theme now being emphasized by the United Nations. It is also directly germane to Thailand's problem of excessive private consumer debt. The following quotation indicates the character of this new nationalistic curricular orientation:

The NCPO's [National Council for Peace and Order] plan to instill a sense of civic duty in Thai children via education gained pace in November last year when it was extracted from the broader topic of social studies to become a subject in its own right. Mr. X was assigned to teach the civic duty subject to all 520 Mathayom 6 [12th grade] students in ____ School... Morning activities in front of the Thai flag [include] lining up, singing the national anthem, and saying prayers....'If a student fails to stand still, does not say his or her prayers or does not sing the national anthem, the whole class will receive a point deduction', Mr. X said with an evident sense of passion. (Nanchanok 2015a, b)

The problem, of course, is that each reform has taken a somewhat different stand in regard to priorities such as STEM, language (English, Thai, and now even mother tongue), and, currently, civic education. This in turn leads to a new series of textbooks and other teaching materials and often to a massive round of in-service teacher training in order to ensure that the new curriculum is really being taught.

The officials at the apex of the highly centralized, top-down education bureaucracy assume, of course, that curriculum reform is an easy process; they design the curriculum, teachers quickly and easily understand it and successfully teach it, and students learn what they are expected to learn. But the actual results (poor performance on the O-Net examinations, low proficiency in English and even in Thai) make clear that the process is not as easy as imagined. In addition, the core curriculum of the Ministry is not always relevant to the needs and circumstances of the disadvantaged and vulnerable – migrants, diverse ethnic and linguistic groups, and disabled children.

⁹Of course, such a focus on morality might be useful given the results of a UNDP study which showed that 63% of students in two major Thai universities believe it is normal to use personal connections to achieve their goals and 68% of them would pay a bribe to get ahead (UNDP 2014).

¹⁰Upholding the nation, religion, and monarchy; having respect for parents, guardians, and teachers; seeking direct and indirect knowledge and education; preserving Thai traditions and culture; and understanding and learning about true democratic ideals with his Majesty as the head of state (Saengpassa 2014)

5.3.6 Teachers

Thai teachers are not being prepared well enough through initial teacher education or continuing professional development to support the country's education reform efforts. Thailand should create a nationwide teacher development strategy to ensure teachers make effective use of student-centered teaching strategies and formative assessments. (OECD-UNESCO 2016)

On the whole, Thailand is not facing a crisis in teacher supply. According to the President of the Thailand Development Research Institute, by 2019 there will be 600,000 teacher candidates to fill 40–50,000 positions (Chularat 2015a). This is partly because in terms of teachers' salaries as a percent of GDP per capita, Thailand is already in the midrange (Fry 2013) globally, and the budget for the ministry was increased by the new government in order to further raise these salaries – but at 15,000 baht for a beginning teacher, this is still not competitive with many other occupations, particularly in the private sector.¹¹ Recent research indicates that in Thailand “teaching was the lowest-paid job compared to public sector workers and five mathematics and science professions” (OECD-UNESCO 2016, p. 232).

The crisis instead will be in regard to teaching capacity. A very large number of experienced teachers are retiring in the coming years, leaving a gap in teaching personnel and depleting the human resources available for building the capacity of other teachers. This should not be a problem given that teachers in Thailand are well trained, at least on paper. Most receive 5 years of university education, including 1 year of supervised, practical teaching. This preservice teacher education system is governed by a Council of Deans of Faculties of Education and Teacher Training. The problem is that the council can only recommend preservice courses, and there is therefore both little standardization of curricula across institutions or even complementarity with the current school curriculum and also neglect of areas such as student assessment, curriculum development and adaptation, and the use of ICT. In addition, the heavy preservice focus on subject matter mastery rather than pedagogy (such as multigrade teaching and teaching through a mother tongue) does not enable teachers to adapt to local contexts and different types of students. Thus, for example, while at the university teachers are supposedly trained in a child-centered teaching methodology, many teachers are not applying it in practice (Hallinger and Lee 2011).

The national competitive examination to obtain a teaching post then fails to assess actual teaching ability or motivation, and the recruitment process is centralized rather than school-based leading to schools being assigned teachers who may

¹¹ This disparity between supply and demand indicates poor planning between units of the Ministry, an inefficient system of preservice teacher education, and the wasting of money spent on the over-production of unneeded teachers which might better be used to support quality improvements and/or salary increases for existing teachers. The 2003 merger of the Ministry of University Affairs (which controlled faculties of education and teacher training) and the Ministry of Education was meant to solve these problems through the creation within the Ministry of an Office of the Higher Education Commission.

not be appropriate for the local context and needs.¹² In addition, there is a lack of adequate induction, assessment, and coaching for new teachers; consequently they have difficulties applying what is taught during their preservice training. Also, in the performance assessment process used for promotions, the academic performance of teachers accounts for only 3%, while 13% depends on the teacher's academic research (*Bangkok Post* 2015b).¹³

Once in a post, teachers are then required to spend a considerable amount of time preparing for both internal assessments (regular testing of their students) and external assessments (such as that of ONESQA), but these assessments, apart from being time-consuming, largely focus on the results from rote learning. Also, because promotion depends more on results of research projects rather than improvements in student achievement, they have little time and motivation to focus on helping children to learn.

Inequality in teacher deployment is also a problem. Schools that are remote and disadvantaged are also where young and inexperienced teachers tend to be assigned. There are few adequate incentives for teachers working in unfavorable locations to keep them there, leading to high teacher turnover and shortage of teachers (and therefore often the hiring of contract teachers) precisely where the need for good teachers is highest and where education quality should be improved the most. Such turnover minimizes the effect of in-service teacher development for disadvantaged areas. The lack of local teachers and those speaking local languages is another factor negatively influencing the quality of teaching and learning. The importance of instruction and initial literacy in mother tongue as a precursor to mastery of Thai and then international languages is not yet well understood (Benson and Kosonen 2013).

The decentralized units of the Ministry, Education Service Area Offices, have education supervisors who are meant to provide pedagogical support to teachers. But many supervisors are not adequately trained, are involved in project management and paperwork at the ESAO office, have little budget to carry out their supervisory roles such as school visits and teacher coaching and mentoring, and therefore cannot provide frequent and needed support to all schools – especially to remote schools which need such support the most.

In summary, a poorly coordinated preservice teacher education system, the lack of adequate induction and mentoring for new teachers, the initial assignment and

¹²A major controversy erupted in April 2015, when a Buddhist teacher was transferred by the ministry to a predominantly Muslim school in the South and then, contrary to ministry policy, prohibited girls from wearing *hijab* head covers and insisted they wear the standard MOE uniform. During an interview with a Muslim news center, she refused to change her decision and said that only her superior in the local district education office could order her to change her mind. In essence, she was transferred to the South without knowing the ministry's policy, was insensitive to the local context, and felt accountable only up to the ministry and not out to the community she was meant to serve (*Bangkok Post* editorial, April 24, 2015a, b, c, d).

¹³The Office of the Teacher Civil Service and Educational Personnel Commission has approved new criteria to obtain a special expertise or specialist teacher title (which leads to higher salaries) which include their students' performance, a classroom assessment, passing an examination, and having their experience assessed by their affiliated civil service agency (Saengpassa 2015b).

transfer of teachers being the responsibility of Bangkok rather than of local education offices or even individual schools, and the lack of instructional leadership from principals and supervisors mean that many teachers do not attain the desired level of practical skills and motivation needed to enhance the quality of Thai education.

5.3.7 The Teaching-Learning Process

While in some schools in Thailand child-centered methods are being used and considerable student participation is evident, regrettably this is not the case in many institutions. Such methods are not, for example, emphasized in the curriculum, teacher education, and assessments. Child-friendly teaching methods are therefore not consistently applied, even though they are part of preservice teacher training. Teachers are under pressure to teach in accordance to the test as examination results have a direct relation to a school's reputation and the promotion of principals. This evidently has not raised overall test results of students, as seen in Table 5.4, and certainly does not help students learn better.

The approach to teaching language and literacy in early grades is a special problem. A focus on spelling and deciphering words, rather than expressing concepts and ideas, prevents students from learning to be creative and analytical. This affects both non-Thai-speaking and Thai-speaking students. The same approach is used for teaching English as a second language and may explain why Thailand fares badly in English.

Also, official and public support for mother tongue-based education is limited at the moment, and since its implementation is voluntary, up to individual schools, there are many schools which could be fully bilingual but either are not implementing it at all or are using a "semi" model where the mother tongue is used only orally to support mastery of Thai. In practice, the Ministry of Education has been open to the inclusion of both mother tongue and standard Thai in an integrated way in the primary school curriculum, where sufficient resources (teachers who speak the language, learning materials in the language, community support) are present. HRH Princess Sirindhorn (2013b, p. 21) has emphasized the importance of mother tongue preservation as an important element of cultural identity (see Chap. 12).

Finally, the shortage of teachers and the high teacher turnover in remote areas adversely affect the teaching process and considerably constrain students' learning. This is especially true for small schools. There are nearly 14,000 small schools with fewer than 100 students in Thailand (totaling 47% of all primary school students), some of which have already been merged or closed. The limited human and learning resources in these schools inevitably constrain the teaching process and student performance. While multigrade teaching is a good pedagogical solution, especially for such schools, it is not yet widely promoted or effectively used (see Little 2006).

5.3.8 Principals/Directors

School principals should be the source of instructional leadership and pedagogical motivation. Such support is critical to ensure that all efforts to improve student performance are implemented, rewarded, and sustained. But in Thailand, principals generally no longer teach or provide instructional leadership to teachers (OECD-UNESCO 2016). Rather, their appointment is based on examinations rather than practical competencies; much of their attention is on management, financial reporting, and external assessment; and they are often out of schools on training courses or doing administrative work elsewhere. They therefore consider themselves as civil servants, accountable up to the bureaucracy, managers of MOE resources, and defenders of Thailand's unity, monarchy, and political system rather than as instructional leaders, accountable to their students, pupils' parents, and the community. In fact, "Prior to the adoption of the [National Education Act] in 1999, terms such as 'instructional leadership' and 'leadership for learning' did not even have translated equivalents in the Thai language" (Hallinger and Bryant 2013). Principals are therefore not systematically chosen for, or trained in, the skills needed to induct, mentor, support, assess, motivate, and further develop the instructional skills of their teachers (see Chap. 22).

5.4 Continuing Challenges

If the education system is a joke, it is a cruel one, and today's youth are the butt of it. If the need for education reform is so clear, students aren't to blame for failing exams. Instead, put the spotlight onto the teachers who wrote the examination papers and the administrators and bureaucrats who approved them. The entire system needs the harsh light of reform daylight. It must be top-to-bottom reform, of the Education Ministry, its bureaucracy, schools, teachers and classroom methods. (*Bangkok Post*, February 24, 2015a, b, c, d)

Thailand was an early innovator and high achiever in the promotion of universal basic education. But due to ever-changing priorities and policies, incomplete reform processes, and a focus more on system stability and compliance rather than on innovation, the quality of education has stagnated. One example is the persistent disconnect between preschools and primary schools which prevents children from acquiring literacy effectively in the early grades. Although preprimary education in the form of kindergartens is considered a part of basic education, it has little weight in the development plans of the Office of the Basic Education Commission of the Ministry of Education. The common understanding of many officers in MOE is that the mandate of OBEC is focused on compulsory education (Grades 1–9). Consequently, there is no seamless transition from preschool to primary school but rather a lack of continuity and coherence of curriculum and teacher training between preprimary (which is holistic, child-centered development) and primary education (which focuses instead on specific subject content). Thus, neither staff of ECCD

centers and kindergartens nor teachers in Grades 1 and 2 have strong skills in how to support children to master functional literacy.

This is not to say that there are no innovations in Thai education. The highly creative Mechai Pattana Bamboo School, for example, is slowly working with small schools elsewhere in Thailand to promote values of democracy, civic duty, accountability, sustainability, entrepreneurship, and lifelong learning (Mechai Pattana Bamboo School 2017). Almost 25% of the schools managed by the Bangkok Municipal Administration have a quota for the inclusion of children with special needs (Supoj 2014), and many local and international NGOs have projects for migrant children, diverse ethnic communities, and children with special needs, but many of these innovative programs have not entered the mainstream public education system.

5.5 Conclusions

Thailand has been known as a leader in education in Southeast Asia – in both increasing access and being concerned with quality – since even before the Jomtien conference in 1990. But in the last decade and more this leadership has been challenged by other nations – most with fewer funds than Thailand to spend on education – which have even more rapidly and more completely expanded their systems and developed innovative solutions to persistent problems, from progressive mother tongue policies in Cambodia and the Philippines to large-scale teacher development and certification policies in Indonesia (Chang et al. 2013), to the promulgation of a national inclusive education policy (broadly defined) in Lao PDR, and to impressive international testing success of Vietnamese students (Pham and Fry 2011; OECD 2016).

The current political situation of Thailand offers both opportunities and challenges in regard to Thailand recovering at least some of its leadership in education. In terms of the former, it offers some stability to a ministry which has undergone overly frequent changes in leadership – both political and technical – and therefore in policy trends over the last decade and more (see [Appendix I](#)). Even more funding has been allocated to the education sector, and both ministry- and cabinet-level reform committees (the latter chaired by the prime minister himself) have been formed to review progress and plans for the future.

But these plans can only succeed if the essential paradoxes of Thai education can be resolved. For one, there is a clear contradiction in the kinds of skills, values, and attitudes children are meant to have to be both good Thai citizens¹⁴ and proactive, innovative participants in national development in a rapidly globalizing world. For example, a section of the Long-Term Plan and Strategy for Early Childhood

¹⁴The draft charter of early 2015 defines what a good “citizen” has to be – not only to respect the law and pay taxes but also to adhere to righteousness, uphold good values, stay disciplined, cherish unity, be persevere, and be self-reliant (Atiya 2015).

Development clearly lays out “desirable characteristics” for children aged 4–6 such as righteousness, virtue, not to hurt others, self-control, control of anger and desires, how to wait, and devotion to the institutions of nation, religion, and monarchy – but also creative thinking, imagination, free expression, and curiosity. The former set of characteristics have now been standardized in the 12 core values mentioned above. This paradox is not unique to Thailand. Singapore, for one, has long struggled to promote more creativity and innovativeness in its traditionally conformist, academically focused education system. But at least it struggles with the paradox rather than, as in Thailand, ignoring it.

Another paradox is that Thailand has gone through a series of seemingly substantial reforms in education and spends more money on education (as a percent of its national budget) than most countries in the world. Yet over and over again, as we have seen, it is far down the rankings of international comparisons in education – in the quality of primary education and the education system as whole, in virtually all of the PISA and TIMSS scores, in English proficiency, and in academic competitiveness and innovation – let alone in global competitiveness and technological readiness (Fry and Bi 2013). There are reasons proposed for this – a bloated bureaucracy, largely centralized in Bangkok, the inefficiency of too many small schools in remote locations, etc. – but there is little discussion within the Ministry, let alone debate, about what might be more profound historical, social, and cultural causes of the education system’s weaknesses.

The challenges to Thai education that contribute to these paradoxes are multiple:

Inequitable, Inefficient, and Ineffective Financing Thailand has been investing considerably in education. However, the financial management and governance of education leave much to be desired. The low quality of education indicates that education spending has not been adequately equitable, efficient, or effective. Little, for example, is spent on educational resources to improve quality. A focus on bricks and mortar (and one laptop per child) and the expansion of administrative personnel have not helped raise student achievement. While much is spent on building schools, remote and small schools benefit little from this investment. Inequitable resource distribution hamstring local education authorities: poorer regions get the same budget per student as better-off regions. As a result, there is inadequate targeting to provide support for the schools in the most remote areas with the greatest needs (see Chap. 14 on regional disparities). Finding sustainable ways to allocate its considerable resources more equitably, efficiently, and effectively will continue to be a major challenge – and opportunity – for the Thai education system.

Inadequate, Weak, School-Based Management Although school-based management is meant to be promoted throughout the system, the necessary school-based assessment and improvement planning processes are generally not well implemented. Parents’ participation in school-based management is not consistent throughout the country. School boards remain a rubber-stamp mechanism as their role is not clearly defined, the capacity of school board members is often inadequate, and school management information systems are rarely utilized for evidence-based decision-making toward quality improvement. But improving the quality of

education where it matters most – at the level of the school – requires strengthening of school-based management; but doing so in a cultural and political system which promotes top-down decision-making rather than popular participation is an essential, but will not be an easy, task.

Limited Local Support and Guidance Support from Educational Service Area Offices (ESAOs) to schools remains limited, especially for very remote schools. Due to the absence of an education office at the provincial level, there is no coordination, collaboration, and mutual support among ESAOs across different areas within a province. The resources available for hiring teachers are determined by the MOE, and there is therefore little room for local authorities to hire more teachers where needed – or the teachers most suited to their context. Depending on the availability of local funding, schools can, however, hire local teachers who later can apply to become regular government teachers. Staff at the ESAOs may know the local situation well but are not given the possibility to manage in the best way possible.

The Large Number of Small Schools As mentioned above, a large number of small schools continue to exist in Thailand, most often in rural and remote areas, but also exist, for historical reasons, in larger communities (see Chap. 13). They are often resource poor, lack motivated and qualified teachers who prefer urban assignments, and sometimes face a dwindling number of students. In addition, although they could use multigrade techniques (with one teacher teaching more than one class at the same time), implemented successfully in many countries of the world, they continue to think that they suffer from not having enough teachers to staff every grade no matter how small each class might be. Virtually every new minister of education starts his tenure with a plan to close or merge many of these schools for the sake of efficiency and cost-savings – but then local resistance to closures, parental concerns about young children traveling to more distant (albeit larger) schools, and the realization that many schools represent an important center for community life mean that the plan is seldom realized. So small schools – financially irrational but politically, socially, and culturally desirable – still exist and will likely continue to do so. The system, therefore, must do more to overcome their inherent weaknesses through such policies as a more equity-based system of school subsidies, more incentives for teacher assignments to difficult contexts, and more effective multigrade teaching.

Incomplete Decentralization

Under the current centralized system, OBEC [the Office of the Basic Education Commission] is in charge of designing curriculum, recruiting, placing, evaluating, and rewarding teachers in state schools nationwide. Local communities do not count...Much has been said about education reform, but the solution boils down to making local communities the teachers' bosses. At present, schools cannot even hire the teachers they need. Nor can local children be trained to answer community needs. Everything big and small is decided in Bangkok. (*Bangkok Post*, April 24, 2015a, b, c, d)

Decentralization of authority has not been truly transferred to educational service areas and local administration organizations from what is usually considered to be

a rigid, bureaucratic, conservative, and oversized central ministry. In such a system, solutions to problems are seen as structural in nature (new regulations, a new national curriculum) and delivered from the top down. There are clearly still uncertainties and tensions in the relationship among the MOE, ESAOs, and individual schools. For example, the coordination between central and local education authorities is less than harmonious. On the one hand, ESAOs perceive that key orders are still handed down from the central level, and the rules do not allow them to make certain decisions. They are therefore unable to be innovative in supporting schools to tackle their particular problems. On the other hand, central level authorities perceive there is low capacity and lack of understanding of decentralization by the local level and have a fear of providing too much authority to “corruptible lower levels” of the system. In fact, a recent study reported that of the total 4.9 billion baht given in bribes to 10 agencies, 13% or 640 million baht went to public schools with officials in these schools seeking bribes averaging 11,796 baht each time they are contacted for many important services (Pasuk 2014; see also Hallak and Poisson 2002 and Tan 2007). Ensuring that anti-corruption mechanisms and regulations reach down to the level of the ESAOs and schools will be important in promoting more efficient and effective decentralization.

In March 2016, the government, using Article 44, announced a new system and structure of decentralization, which emphasizes the province as the focal point of decentralization (MOE 2016) (see Chap. 4). It is too early to assess how this system may respond to the critiques articulated above. The new system does build potentially upon the area-based education (ABE) innovation, introduced experimentally in 14 provinces by the Thailand Research Fund and the Quality Learning Foundation (Chuachan and Aroonsi 2013). Its success will depend primarily on two factors: (1) the extent to which the central government genuinely devolves power and authority to the new Provincial Education Committees (PECs) and (2) the effectiveness and efficiency of these local entities in improving quality and decreasing inequalities in education.

Final Reflections

The real challenge, of course, is that all of this is happening at just the time when the reverse should be the case – an innovative, visionary, quick-acting bureaucracy facilitating rather than hindering local initiatives – in order to meet the massive challenges which further globalization and the newly established ASEAN Economic Community (AEC) will bring. With Singapore (of course), the Philippines, and Malaysia dominating the English proficiency tables and Indonesia and even Vietnam and Cambodia moving ahead on various measures of educational quality and competitiveness, Thailand, given the current state of its basic education, will be hard pressed to remain competitive. Especially as its youth population shrinks, the challenge will be how to ensure that all students gain not only the hard skills (STEM, ICT, English) needed for a competitive, technology-based future but also the “soft,” transversal skills considered so essential for development – such as problem solving, teamwork, communication and language proficiencies, innovation, and cultural competence – while at the same time retaining the nation’s sociocultural uniqueness and diversity. Atipong provides an insightful statement of the basic problem in Thai education:

The basic problem is suppressing curiosity by asserting the educators' words as the absolute authority, which sends a message to children that questions are not welcome. Next, pushing dogma...by never explaining the reasons and evidence behind actions and decisions, limits children's ability to learn and apply them in other situations. Moreover, rejecting alternative viewpoints, interpretations and explanations give Thai children the impression that there is only one way to approach a particular problem. In addition, over-reliance on well-structured problems, which are solved by algorithms and yield only one correct answer, never reflect the complexity of ill-structured problems in the real world. Finally, spoon-feeding knowledge produces passive learning and hampers their development of self-directedness. (Atipong 2014)

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Chapter 6

Rethinking Thai Secondary Education



Amornwich Nakornthap

Abstract This chapter presents both the current situation and future perspectives on the Thai secondary education system. As the system has only been fully developed for just over half a century, it is still coping with shortcomings in many respects. As the system embraces quite a variety of schools, from top science schools and international schools in Bangkok and some major cities to small and under-subsidized schools in rural areas, it is quite challenging to transform our wide range of schools into a more equitable and relevant system. With the government's ambitious plan to prepare Thailand to become an innovation-driven economy and a knowledge-based society, it is imperative that secondary education must respond to future needs of the country. The notion of a career-oriented curriculum for employability and entrepreneurship, the area approach for reform particularly in special economic zones, the new competencies required for teachers and administrators, and reinvesting in our secondary schools are some of the key issues discussed in the chapter.

6.1 Background: The Complex Ecology of the Thai Education System

The long-standing efforts to reform the Thai education system have been well-documented beginning with the report of the Committee on Education Reform entitled *Education for Life and Society* in the mid-1970s (Sippanondha et al. 1975; ONEC 1976) to the later report of the committee on Thai education in the age of globalization in the 1990s (Amornwich 1995; Sippanondha 1996). Due to political instability and subsequent discontinuity of the reform movement,¹ there has been a

¹There were 20 ministers appointed to the Ministry of Education during the 17-year span between 2000 and 2017 (See [Appendix I](#))

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long struggle to reengineer Thai education to become a key instrument for national security, competitiveness, and sustainable development (Commission on Education Reform, National Reform Council 2015).

Furthermore, Thailand is presently facing even more complex social, political, and economic challenges than ever before. The digital economy, a rapidly aging society with low fertility, the inception of AEC at the end of 2015, along with the transportation mega-projects linking China and mainland ASEAN countries considered altogether place Thailand at the brink of transformation from a middle-income country to a more advanced economy. Nearly all agree that quality education is crucial for escaping “the middle-income trap” (Pasuk and Pornthep 2012; Somchai 2012; Warr 2011) and moving to this more advanced economic stage.

The National Reform Council (NRC) together with the National Legislative Assembly (NLA) and the Ministry of Education (MOE) under the government of Prime Minister Prayut Chan-o-cha recognizes the strategic importance of education reform for the future of the country. The prime minister, therefore, established a *Super Board* on education, comprised of key government figures, education ministers, and prominent scholars, to coordinate the reform effort of all parties concerned so as to meet both short-term and long-term human resource needs and the growing knowledge demands of the country. This is probably the period with the highest public expectations for education reform in recent Thai history.

The focus of this chapter is on the need to rethink Thai secondary education. Again, with the new ecology and challenges facing our education system, Thai secondary education is in a critical period for reform not only to meet the needs of millions of students but also the requirements of the country looking forward to become a socially strong and more economically competitive nation in the future. Prior to sharing the blueprint for reform, basic information is provided on the Thai secondary education system, primarily a description of the history of secondary education, the evolution of the secondary school curriculum, and a detailed delineation of the many diverse genres of secondary schools in Thailand.

6.2 Historical Evolution of Secondary Education in Thailand

The historical evolution of Thai secondary education can be best understood by identifying two major phases (Kasama 2006):

6.2.1 Early Exclusive Phase, 1884–1971

Thai secondary education has a long history dating back to 1884 when the first school was opened to the public. Prior to that pupils had studied at the temple with monks and the children of nobles had studied in the palaces. In 1921, the first Compulsory Education Act was promulgated (Manich 1951). During this period,

secondary education was primarily for preparing individuals to work in the government service and to prepare teachers. Both general and vocational education were also offered to the broader public but numbers participating were limited. As of 1960, only 2% of the relevant age group were enrolled in secondary education (Benveniste 2008).

Later in 1971, there were still only around 2000 secondary schools in the Kingdom, many of high quality and good standards, but exclusive, serving the selected few. As of 1971, only 14% of the 13–18 age group was enrolled in secondary education. So the vast majority of the Thai population had only a primary education, and many dropped out after completing only the first phase (grades 1–4) of primary school. With fertility still high at that time, this did provide Thailand with a huge pool of rural “cheap labor” to migrate to Bangkok to work in both the newly developing industrial and service sectors (Textor 1961). The late Nobel laureate in development economics, Sir Arthur Lewis (1954), in a classic article identified this particular development strategy which contributed to Thailand’s dynamic economic and industrial growth in the 1980s and early 1990s (Ranis 2004).

6.2.2 Phase II: Move Toward Secondary Education for All, 1972–Present and the Massification of Secondary Education

Though secondary enrollments were stagnant during most of the 1980s, rapid economic growth and the expansion of the Thai economy necessitated improving the educational quality of the workforce for Thailand to sustain its economic success and to become more competitive. In 1980, major educational restructuring took place which moved rural primary schools out of the Ministry of Interior and into the Ministry of Education. This structural change had huge implications for secondary education, making possible in 1987 the creation of “extended primary schools” which added on 3 years of local secondary education to rural primary schools. By 1995, these schools had grown to 6600 representing 22% of primary schools and providing opportunities to continue to secondary school for 21% of primary school graduates.

In 1990, Thailand hosted the landmark international Jomtien conference where the education for all initiative was launched creating further momentum toward achieving a rapid expansion of secondary education. During the late 1980s and early 1990s, Thailand had one of the world’s hottest economies both providing financial resources for secondary school expansion but also creating the need for an increasingly qualified and productive labor force (BOI 1992; Pasuk and Baker 1996). In 1996, Thailand launched a special Student Loan Fund (SLF) which was rather exceptional in also providing loans for study at the secondary level in addition to higher education (Somkiat and Areeya 2010). Normally, such loan funds in other countries are limited to higher education. A huge budget of 185 billion baht was allocated to this fund.

With the Asian economic crisis of 1997–1998 (Pasuk and Baker 1998), there was increasing awareness that Thailand was lagging behind major economic competitors such as Malaysia and Vietnam in secondary school enrollments. This crisis actually provided an opportunity and compelling rationale to pursue seriously education reform (Fry 2000). The 1997 Constitution addressed this issue by providing 12 years of free schooling and mandating education reform, resulting in the 1999 National Education Act, requiring for the first time 9 years of compulsory basic education, ensuring that nearly all Thais would have completed at least lower secondary education (grades 7–9) (ONEC 1999, 2002). The Nine-Year Compulsory Education Act was formally approved in 2002. Thailand as part of its national Millennium Development Goals (MDGs) established the target of achieving universal lower secondary education by the year 2006 and universal upper secondary education by the year 2015 (Thailand Social Monitor 2006).

To expand secondary education, the Thai government introduced multiple strategies:

- Creation and expansion of the “extended primary schools” mentioned above provided free of charge.
- Highly exclusive secondary schools were encouraged to open admissions to students of more diverse backgrounds.
- Over 500 new secondary schools were constructed in rural areas where no secondary or extended primary schools had been available previously.
- Schools for the disabled were expanded.
- Government welfare schools serving the disadvantaged were increased.
- Gradually free secondary education was introduced starting with the extended primary schools.
- After the 1999 National Education Act, then all public secondary education was made free.
- Alternative forms of obtaining secondary education were recognized. Examples are nonformal education equivalency courses, Buddhist education, Islamic education, home schools, and various kinds of distance education.

6.2.3 Improving the Quality and Relevance of Secondary Education

Four approaches were emphasized (Kasama 2006):

6.2.3.1 Transformation of the Secondary School Curriculum

The secondary school curriculum was revised moving away from the exclusive academic focus on preparation for university study to a more basic education for all approach. The curriculum was diversified to enable students to explore and develop

their individualized competencies. The new curriculum also allowed schools to develop their own curriculum as long as their students could meet the eight basic areas of learning achievement. A new comprehensive system of guidance and counseling was introduced into secondary schools to help students adjust to the new curriculum with greater choice. Chulalongkorn University later established a Faculty of Psychology in 1996 that includes an important graduate program in counseling psychology. Section 6.4 of this chapter provides a detailed discussion of the evolution of the secondary school curriculum.

6.2.3.2 Strengthening Vocational Secondary Education

Realizing that many graduates of lower secondary school would not continue on to the academic stream, it was important to introduce in an integrated way different forms of vocational education options. Also various skill-oriented courses were introduced into the lower secondary curriculum. After completing lower secondary education, students can enter either government or private upper secondary vocational schools.

Currently, about 40% of upper secondary students have chosen the vocational option. The current goal is to have better balance between vocational and general secondary education, with at least 50% in the vocational stream. To achieve this target, numerous strategies have been introduced to popularize the vocational school option among the public, namely, to make curricula more competency-based, to provide more opportunities for direct experiential learning with a dual system of training, to subsidize vocational school fees, to have better articulation with technical higher education, and to develop closer linkages with the private sector. Joint programs were also established between secondary and vocational schools to offer vocational training to students in rural areas (see Chap. 7).

6.2.3.3 New University Admissions Policies and Their Relevance to Secondary Schooling

With the great importance attached to the university entrance examination, this exerted undue influence on the teaching and learning practices in secondary schools. Teachers were increasingly preoccupied with preparing their students for the highly competitive exams which contained content beyond the curriculum. This system in turn led students (those with the financial means) to devote more time to coaching schools than their regular curriculum which was viewed as irrelevant to the examination (see Chap. 25).

To solve this problem, there were concerted efforts to modify the admissions system to combine in admissions considerations both the results of standardized examinations and high school performance. This has resulted in a more balanced system with three factors taken into account in university admissions: (1) overall GPA, (2) GPA in relevant subject matter, and (3) national test scores. The system

needs further refinement, but now secondary education and university admissions are more closely aligned.

6.2.3.4 Establishment of a Quality Assurance System

A new quality assurance system was mandated by the 1999 National Education Act (ONEC 1999). In 2000, a new agency (public organization, independent of the Ministry of Education), the Office of National Educational Standards and Quality Assurance (ONESQA) was established to implement the new system, requiring all schools at every level to be systematically assessed every 5 years. ONESQA examined student outcomes, quality of teachers, professional competencies, and the principal's leadership ability. The expected outcome was that these assessments would lead to school improvements. To avoid the threatening "evaluation" approach, a more formative amicable (*kalayanamit*) (กัลยาณมิตร) process was used instead to assist schools in improving their performance (see Chap. 24). In its assessment of secondary education, the World Bank saw the role of ONESQA as primarily procedural (The Thailand Monitor 2006).

6.2.4 Preparing the Future Generation for a Globalizing World

In the early 1990s, there was growing awareness in Thailand of the powerful forces of globalization affecting nations around the world. There were even arguments about which Thai word would be best to use for "globalization" (Chai-Anan 1994, 2002; Sontiyon 1995). The Thai Farmers' Bank demonstrating impressive vision supported the establishment of a Special National Commission on Education in an Era of Globalization (Amornwich 1995; Sippanondha 1996). Thailand's response to the daunting educational challenges of globalization involved the following five key strategies:

6.2.4.1 Development of ICT in Education

Thailand had developed satellite capabilities (starting in 1993) which were then used to promote the latest, up-to-date information and training via distance learning. These projects were developed both by a royal instituted project, the Distance Learning Foundation (DLF) in Hua Hin and the Ministry of Education (Le Fevre 2013). Through such distance learning and innovative programming, both secondary schools and their students could benefit and have access to an enriched curriculum responsive to the powerful forces of globalization. Integral to this process are three elements: (1) satellite and/or Internet access, (2) adequate numbers of computers, and (3) teachers trained to use ICT effectively. Eighty percent of teachers are now computer literate. All schools now have Internet access, and computers are being

secured for those schools still lacking adequate numbers. Through cooperation with both universities and the private sector, needed educational software is being developed and adapted. As part of the Ministry of Education, the Education Technology Center was also established to aid and facilitate continuing development of education technology in schools around the country.

6.2.4.2 Promoting Learning Languages of the World

In a global era and in the new age of the AEC (started at the end of 2015), knowledge of other languages is increasingly important. English as a global language and the lingua franca of the AEC is universally taught starting in the first grade. However, results have not been satisfactory, and there is a national effort to upgrade the quality of English teachers. In a recent ranking, Thailand was the third worst in English in the Asia area (Frederickson 2015). Every Educational Service Area (ESA) has an English language resource and instruction center. There are also efforts to increase opportunities to study Chinese in Thai secondary schools. The Chinese government with its Confucian Institutes is assisting in this effort. In areas close to Thai borders, it is important to offer instruction in languages such as Vietnamese, Burmese, Malay, and Khmer. Dr. Rung Kaewdang, a key architect of the 1999 education reform, feels strongly that in an era of globalization and the AEC, all well-educated Thais should know at least one Western language and one other Asian language as well.

6.2.4.3 Upgrading the Teaching of Science and Technology

In 1972, the Institute for the Promotion of Teaching Science and Technology was established to promote quality curricula and pedagogies in the area of science and technology. A network of science centers has been established across the country. More details on this topic can be found in Chap. 17.

6.2.4.4 Education for the Gifted and the Talented

To meet the needs of these talented students, specialized schools have been established in the areas of science, music, and sports. Exemplary in the science area is the science school, Mahidol Wittayanusorn (MWIT or MWITS) which serves the nation's top students in the area of science and technology. Numerous students from this school have gone to win international prizes in competitions such as the International Scientific Olympiads. High achievers in this area have been identified through various national competitions. Such students are supported through enrichment camps and special scholarships. Thai universities have also provided special mentoring and advanced studies for such top secondary students.

6.2.4.5 One District One Lab School/One Scholarship

This visionary program provides for one outstanding “lab school” meeting national standards in each of Thailand’s 878 local administrative districts. Also a scholarship is provided to the top student in each district to pursue undergraduate studies in Thailand or abroad.

6.3 Some Paradoxes in Contemporary Thai Secondary Education

There are several paradoxes related to Thai secondary education. First, the average student-teacher ratio at this level is a reasonable 28.1. However, the average class size is a much higher and a more problematic 43, suggesting the need for a more efficient use of teacher resources than is currently the case.

Second, while in many countries there are serious gender disparities (lack of equitable opportunities for female students), the concern in Thailand is the opposite with fewer male than females completing secondary schooling.

Third, in terms of formal education, compared to many countries at its income level, Thailand has a well-educated teaching force with 87% of secondary teachers holding a bachelor’s degree and 11% a master’s degree (Benveniste 2008). Yet, its test results both international (PISA and TIMMS) and domestic (O-NET) are far from satisfactory.

Fourth, while Thailand, in terms of percent of government budget spent on education, invests heavily in education, related to international standards, it lags behind in providing support for secondary education. Thus, Thailand is giving more priority to primary and higher education.

Fifth, and the final paradox is that despite the global trend of the privatization of education, the private sector contributes to only 5% of Thailand’s spending on secondary education. In the Philippines, by contrast, the private sector contributes 84% of the funding for secondary education (Thailand Social Monitor 2006).

6.4 The Evolution of the Secondary School Curriculum

This is also a largely descriptive section providing an overview of the secondary school curriculum and how it has evolved over time. The direction for curriculum development has followed the directives stipulated in various national education plans approved over the decades. Within the last half century, major changes are as follows:

Table 6.1 The structure of lower secondary education in the national curriculum of 1978

Subject areas	Number of hours of instruction per week					
	Year 1 of lower secondary		Year 2 of lower secondary		Year 3 of lower secondary	
	Required	Electives	Required	Electives	Required	Electives
1. Language						
Thai	4	–	4	2	4	4
Foreign language	–	6	–	6	–	8
2. Science – Mathematics						
Science	4	–	4	–	4	–
Mathematics	4	–	4	–	–	6
3. Social studies	5	2	5	2	5	4
4. Personality development						
Physical	3	2	3	2	3	4
Arts	2	2	2	4	–	6
5. Skilling training						
Skill	4	–	4	–	4	–
Career	–	6	–	6	–	6
Total not less than	26	6	26	6	20	12
Tutorial	3		3		3	
Grand total not less than	35		35		35	

6.4.1 National Curriculum in Accordance with the National Education Plan of 1960

The structure of the education system was 4:3:3:2, namely, 4 years of lower primary, 3 years of upper primary, 3 years of lower secondary, and 2 years of upper secondary education. The curriculum focused on four key areas of development: cognition, morality, physical development, and skills. Students were required to study six subject areas: Thai social studies, science, mathematics, physical education, and art education. Upper secondary education adhered to this curriculum structure until 1975. The upper secondary education curriculum was then revised to include required subjects and electives with credits given for each subject (Table 6.1).

6.4.2 *National Curriculum in Accordance with the National Education Plan of 1977*

In 1977, the structure of the educational system was changed to 6:3:3. The curriculum shifted the focus from acquiring academic knowledge to broader human development with an emphasis on *khit pen* (คิดเป็น) (developing the ability to think), a key concept developed by Dr. Kowit Varapipatana, the founder of Thai nonformal education (Bernard and Armstrong 1979; Sumalee and Mellor 1984). There was also an emphasis on the ability to do things, being able to solve problems, and citizenship under a democratic constitutional monarchy. Learning processes advocated were learner centered, a holistic approach to learning, and integration with provisions for skill training.

The lower secondary curriculum aimed to provide more balanced learning opportunities in both academic and vocational training. Greater concerns were given to responding to the needs, interests, and the aptitudes of the students as well as the diverse needs of local communities.

At the upper secondary level, curriculum revisions were delayed until 1981 as the curriculum had already been revised in 1975. After the 1978, lower secondary curriculum was introduced for a few years; the upper secondary was revised to provide more opportunities for the students to pursue their own interests and aptitudes and to be able to choose between the academic and vocational streams. The students were also able to transfer learning experiences from workplace and resource centers.

The structure of the upper secondary curriculum was designed as follows:

- *Required subjects 24 credits*

Thai 6 credits.

Social studies 6 credits.

Physical education 6 credits.

Science 6 credits.

Skill training 12 credits to choose from industrial skills/agriculture skills/home economics/trade and commerce/arts, and crafts/fine arts

- *Electives*

The students have options to choose from foreign languages, mathematics according to their educational plans, or any other subjects in which they are interested.

6.4.3 *National Curriculum of 1980*

In 1980 under the leadership of Dr. Sippanondha Ketudat, the Ministry of Education launched an important project to expand secondary education to the rice roots level by transforming primary schools to extended primary schools offering up to the

lower secondary level. This expansion drew new groups of secondary students into the system and called for a more diversified curriculum. In the revision of the 1980 curriculum, all the basic goals and structure of the national curriculum of 1978 remained unchanged. The revisions aimed primarily to improve the responsiveness and the relevancy of the curriculum by strengthening the local components of the curriculum in terms of content, local curricula, learning materials, and learning activities.

6.4.4 National Curriculum in Accordance with the 1999 National Education Act

Two years after the 1999 National Education Act was promulgated, the first National Basic Education Curriculum of 2001 was announced and piloted in numerous schools in 2002 (MOE 2002). The structure of the system continued to be 6:3:3, but the first 9 years were now considered to be compulsory. The major changes were as follows:

- The curriculum was designed as a continuing integral part of 1–12 years of basic education, unlike the previous curricula which were developed independently of each other.
- The curriculum was divided into four levels: Primary 1–3, Primary 4–6, Secondary 1–3, and Secondary 4–6.
- The curriculum no longer prescribed subjects to be taught but set learning standards to be achieved.
- The schools no longer have to follow the prescribed subjects to be taught nor prescribed textbooks to be used, but have the freedom to develop their own school curriculum to meet the core learning standards. The curriculum must be approved by the school boards.
- The standards specify eight areas of learning including:
 - Learning areas to provide the foundation for learning, thinking, and problem solving skills: Thai, math, science, and social studies/religion/culture
 - Learning areas to enhance human development and the foundation for thinking and working: health and physical education, the arts/skill, development and technology/foreign languages
- The curriculum also required that the schools organize learner development activities through counseling and various forms of clubs and projects to enhance personal development according to the interests and the potential of each student (Table 6.2)

Table 6.2 Structure of the National Basic Education Curriculum of 2001

Different Levels	Primary education		Secondary education	
	Lower level	Upper level	Lower level	Upper level
	(Grades 1–3)	(Grades 4–6)	(Grades 7–9)	(Grades 10–12)
	← Compulsory education →			
← Basic education →				
8 key subject areas				
Thai	●	●	●	●
Mathematics	●	●	●	●
Science	●	●	●	●
Social science, religion, and culture	●	●	●	●
Health and physical education	■	■	■	■
Arts	■	■	■	■
Work-life and technology	■	■	■	■
Foreign language(s)	■	■	■	■
Activities to develop students	▲	▲	▲	▲
Instructional hours	Approximately 800–1000 h per year	Approximately 800–1000 h per year	Approximately 1000–1200 h per year	No less than 1200 h per year

Note: A circle means skills to provide basic foundations for thinking and learning, a square means thinking and working skills contributing to student development, a triangle means learning activities beyond the eight subject areas and for personal development related to individuals' potential

6.4.5 The National Basic Education Curriculum of 2008

Due to confusion created during the initial phase of the 2001 curriculum, particularly in developing local school-based curricula, another revision of the National Basic Education Curriculum occurred in 2008.

The revised curriculum shared all the main features of the 2001 curriculum with major amendments designed to overcome problems encountered during implementation and to give greater emphasis to the development of twenty-first-century skills. Instead of specifying the learning objectives by levels, allowing the schools to decide the year by year goals, the yearly learning objectives were delineated as shown in Table 6.3 below:

Table 6.3 Structure of instructional time, National Basic Education Curriculum of 2008

Basic subject areas and activities	Hours of instruction									
	Primary education						Lower secondary education			Upper secondary education
	G.1	G.2	G.3	G.4	G.5	G.6	G.7	G.8	G.9	Grades 10–12
Subject areas										
Thai language	200	200	200	160	160	160	120 (3 credits)	120 (3 credits)	120 (3 credits)	240 (6 credits)
Mathematics	200	200	200	160	160	160	120 (3 credits)	120 (3 credits)	120 (3 credits)	240 (6 credits)
Science	80	80	80	80	80	80	120 (3 credits)	120 (3 credits)	120 (3 credits)	240 (6 credits)
Social science, religion, and culture	120	120	120	120	120	120	160	160	160	320
-History							(4 credits)	(4 credits)	(4 credits)	(8 credits)
-Religion, morality, and ethics	40	40	40	40	40	40	40	40	40	80
-Citizenship, culture, and life skills							(1 credit)	(1 credit)	(1 credit)	(2 credits)
-Economics										
-Geography	80	80	80	80	80	80	120 (3credits)	120 (3 credits)	120 (3 credits)	240 (6 credits)
Health and physical education	80	80	80	80	80	80	80 (2 credits)	80 (2 credits)	80 (2 credits)	120 (3 credits)
Arts	80	80	80	80	80	80	80 (2 credits)	80 (2 credits)	80 (2 credits)	120 (3 credits)
Work-life and technology	40	40	40	80	80	80	80 (2 credits)	80 (2 credits)	80 (2 credits)	120 (3 credits)
Foreign language(s)	40	40	40	80	80	80	120 (3 credits)	120 (3 credits)	120 (3 credits)	240 (6 credits)

(continued)

Table 6.3 (continued)

Basic subject areas and activities	Hours of instruction									
	Primary education						Lower secondary education			Upper secondary education
	G.1	G.2	G.3	G.4	G.5	G.6	G.7	G.8	G.9	Grades 10–12
Total instructional hours (basic education)	840	840	840	840	840	840	880 (22credits)	880 (22 credits)	880 (22credits)	1640 (41 credits)
Activities to develop learners	120	120	120	120	120	120	120	120	120	360
Subjects and activities that schools would like to offer dependent on their readiness and emphases	No less than 40 h						No less than 200 h			No less than 1600 h
Total instructional hours	No less than 1000 h per year						No less than 1000 h per year			For the total 3 years no less than 3600 h

Source: Structure of Instructional Hours Adjusted by Order No. 683/2552 of OBEC, issued on May 13, 2009 and order No. 110/2555 issued on March 25, 2012

6.4.6 *Boy and Girl Scout Activities*

In the area of learner development and cocurricular activities, it is important to mention Boy and Girl Scout activities. This initiative began in the reign of King Rama VI who introduced Boy Scout activities from England in 1911 and these have become an integral part of both elementary and secondary education ever since (Vella and Vella 1978). Boy Scouts (*Luk Sua*) (ลูกเสือ) and Girl Scouts (*Net Naree*) (เนตรนารี) were quite popular and successful for so many decades as the outdoor and hands-on nature of the activities were so suitable with the nature of Thai youngsters.

Since 1985, scouting has become a compulsory subject in elementary and secondary schools. Temporarily scout activities become less useful and enjoyable for students and less significant for school administrators as compared to other core subjects needed for academic achievement. Currently, scouting (unlike in the USA and Japan) is a formal part of the curriculum, part of the area of learner development. It starts in grade 1, and for grades 1–3, the term is *Luk Sua Samrong* (ลูกเสือสำรอง) (Cub Scout). Then in grades 4–6, they are called *Luk Sua Saman* (ลูกเสือสามัญ) (Boy Scout). For lower secondary, they are called *Luk Sua Saman Runmai* (ลูกเสือสามัญรุ่นใหญ่) (Senior Scout), and for upper secondary, the term is *Luk Sua Wisaman* (ลูกเสือ

วิสามัญ) (Special Boy Scout). For female students, it would be Girl Scout, Senior Girl Scout, with similar terminology. The scout segment of the curriculum is only 1 h and graded pass/no pass. It can be any day of the week, but normally is the last hour of instruction on Wednesdays and on that day both students and teachers wear scout uniforms. The primary goal of the scouting activity is moral education, to build character and community so that students can work well in groups with solidarity, harmony, and social responsibility. Those activities have been utilized to strengthen the national integration of Thai people (Murata, 2017 March 2, personal communication; Rosarin, 2017 February 18, personal communication).

The Ministry of Education at present is seriously considering a plan to revive the scout activity to its original tradition. Currently, the government is placing great emphasis on values and the character development of our new generation. Therefore, the future outlook of revitalizing scouting programs in secondary schools is quite promising.

6.5 Genres of Secondary Education in Thailand

This section of the chapter describes in detail the different types of secondary schools which exist in Thailand. Secondary education is extremely diverse, and there are many different genres of secondary schools. In terms of structure, there is lower secondary (grades 7–9) and upper secondary (grades 10–12). Many schools offer both lower and secondary education, but many, particularly in remote rural areas, offer only lower secondary. The normal age group for secondary education is ages 13–15 for lower secondary, and ages 16–18 for upper secondary.

In the early 1970s, the well-known British economist of education, Mark Blaug (1972) guided a major empirical study of the returns to investments in Thai education financed by the Ford Foundation. The two key Thai agencies participating in the study were the National Educational Commission (NEC) and the National Institute of Development Administration (NIDA). The project reflected a new movement to encourage more data-driven decision making. As an important part of the study, with respect to secondary education, Blaug used a key variable, whether a Thai secondary school was public or private. Unfortunately, this binary Western way of thinking greatly oversimplified the situation of Thai secondary education. Actually there are many high-quality private schools, but also many low-quality private schools. The same is true for public schools. Thus, this distinction was rather meaningless in the Thai context. It should also be noted that private schools may be either nonprofit or for profit.

In the early 1970s, Fry (1976, 1980) in his research on education and occupational attainment in Thailand, did extensive emic analysis (Pike 1993) to try to ascertain the major genres of Thai secondary education. Based on his research the following major genres of Thai secondary education emerged:

6.5.1 *Rongrian Mi Chue* (โรงเรียนมีชื่อ) (*Famous Prestigious “Name” Schools*)

This concept relates to John Meyer’s viewing schools as having a social charter (1969). When asked, many educated Thais could easily identify these schools, some of which were public and some private, most located in the primate city of Bangkok. Among such famous prestigious schools are the following in no particular rank order (Table 6.4):

There is extreme competition to get into these top prestigious high schools, which involve both meritocratic but can also involve other ascriptive criteria for admission. There is the emic concept of *pae chia* (แป๊ะเจี๊ยะ) (“tea money”). This is a kind of financial donation to a school for the “library,” “computer labs,” or other facilities or activities which can be used to help secure admission for the children of elite wealthy families who can afford the *pae chia* payment. Also teachers at the

Table 6.4 List of many of the famous prestigious “name” schools

Name	Type
Assumption College	Private
Bangkok Christian College	Private
Mahidol Wittayanusorn School (MWIT or MWITS)	Public
Triam Udom School	Public
Chitlada	Private, Palace school
Vajiravudh School	Private, named after King Rama VI, boarding school for boys
Sathit Chula	Public demonstration school of Chulalongkorn University
Sathit Kasetsart	Public demonstration school of Kasetsart University
Sathit (Srinakharinwirot, Pathumwan)	Public demonstration school of Srinakharinwirot University
Sathit (Srinakharinwirot, Prasarnmit)	Public demonstration school of Srinakharinwirot University
Sathit Chiang Mai	Public demonstration school of Chiang Mai University
Satriwithaya	Public, for girls only
Suankularb	Public
Debsirin School	Public for boys
Prince Royal College (Chiang Mai)	Private
Dara Academy (Chiang Mai)	Private
Mater Dei	Private for girls
St. Gabriel’s	Private
Wattana Wittaya Academy	Private for girls

College here refers to secondary schools, not universities or post-secondary institutions

school may be given a quota of places that they may use to give to their friends or gain influence (the exchange theory of Blau (1964) and Lave and March (1993). After becoming Minister of Education in 2006, Dr. Wichit Srisa-an tried to eliminate the *pae chia* system, but that proved difficult, given that it is such a long-standing tradition. While Westerners may criticize the *pae chia* system as a form of educational corruption, it is actually similar to big donors in the USA giving to prestigious universities to facilitate admission of their children. It should be noted that the Thai name schools, particularly the private ones, can be rather expensive. Relevant to this category of school, there is a directory available of Thailand's top public and private schools (Top 100 Best, etc. 2016).

6.5.2 *Rongrian Farang* (โรงเรียนฝรั่ง) (*Western Schools*)

This category overlaps some with the initial category. These are schools, many with long traditions, which were usually established by Western missionaries. Among the most famous of such schools are the Catholic schools, Assumption, and Mater Dei. They are private schools. They generally have highly loyal alumni who have been quite successful.

6.5.3 *Rongrian Wat* (โรงเรียนวัด) (*Temple Schools*)

These schools are common throughout Thailand, particularly in rural areas. After Thailand shifted to a secular school system with the reforms of King Chulalongkorn the Great in the late 1800s, many abbots at Buddhist temples around the country donated temple land for the construction of public schools. Schools on temple grounds came to be known as *rongrian wat* (temple schools). Schools located at famous urban temples such as Wat Bovorniwes, where King Rama IX was ordained, are actually quite prestigious.

6.5.4 *Rongrian Sathit* (โรงเรียนสาธิต) (*Demonstration Schools*)

These are schools connected to faculties of education at major universities. Over time, their reputation as high-quality schools has continued to grow (Jitsiree 2015). A number of them are also going international with scholarships, for example, for students from neighboring Laos.

6.5.5 Magnet Schools for the Gifted

The major example of this genre is the Mahidol Wittayanusorn School (MWIT or MWITS) located on the Salaya campus of Mahidol University. It attracts Thailand's most talented students in the areas of mathematics and science. Its students have done well in international Olympiads competing for medals in subjects such as physics, biology, chemistry, and mathematics.

6.5.6 Royal Schools

These are prestigious schools associated with the royal family and palace. The most famous of these is Chitlada, located on the palace grounds and directed by HRH Princess Maha Chakri Sirindhorn. Other famous royal schools are Prince Royal College (Chiang Mai), Vajiravudh College, with a strong emphasis on sports and music, and Rajinibon and Rajinilang schools in the central old part of Bangkok.

6.5.7 Religious Schools

An example of this kind of school is the Islamic College of Thailand (a public school), located in Thonburi, across the river from Bangkok. This school has an impressive campus and many of its famous alumni have given generously to the school. The school's curriculum includes the creative integration of Islamic, Buddhist, and secular studies. Since there is no separation of "church and state" in Thailand, the government can financially support religious schools (see Chap. 3).

6.5.8 BMA Schools

These are schools run by the Bangkok Metropolitan Administration (BMA). Because of so many prominent businesses being located in Bangkok, the BMA has an excellent tax base to provide substantial budgetary resources to support its schools. These are public schools, which often have excellent facilities such as computer or science laboratories and air-conditioned classrooms and libraries. These various genres of schools can overlap. Figure 6.1 shows a school, located in Nakhon Pathom (province west of Bangkok) which is both a temple and BMA school. Interestingly, the school's administrators are three women, showing their prominent role in Thai education. In the image, the vision of the school is presented.

Fig. 6.1 Rongrian Wat Muang (Muang Temple School, also a BMA school) (Photo courtesy of School Director Penpa Chomdech)



6.5.9 Schools Under the Department of Local Administration (DOLA), Ministry of Interior (MOI)

Though rural primary schools (*rongrian prachaban*) (โรงเรียนประชาบาล) were transferred from the MOI to the MOE in 1980 today there are still numerous schools under the MOI. Up-country, there are also many municipal schools, and they are under the supervision of the Bureau of Local Educational Cooperation and Development: Municipal Schools and Pattaya City Schools, DOLA, MOI.

6.5.10 *Special Innovative Alternative Schools (See Chap. 26)*

These are special schools run by dynamic social entrepreneurs who would like to foster innovative alternative schooling. Two of the most famous schools of this type are the Bamboo School (see Fig. 6.2) run by Mechai Viravaidya, one of Thailand's leading social entrepreneurs known as the Condom King, and Rung Aroon School in Thonburi founded by the architect, Prapapat Niyom. Mechai's innovative Bamboo School is located in the remote northeastern province of Buri Ram which borders Cambodia. Students, for example, play a major role in selecting their teachers and administrators. There is no tuition, and there is an emphasis on the school serving the surrounding community. The Rung Aroon School, located in Thonburi, emphasizes holistic education and cooperative learning in a stimulating attractive environment, based on Buddhist principles. Many visitors to the school comment that it looks like a resort.

6.5.11 *Local Government Schools*

Each province will normally have a large provincial school (*rongrian pracham changwat*) (โรงเรียนประจำจังหวัด), which is large and normally well-funded. Another important genre is *rongrian cayai ogat* (โรงเรียนขยายโอกาส) (opportunity expanding schools or “extended primary schools”) (see Fig. 6.2). These schools, mainly located in remote rural areas, were originally only primary schools offering grades 1–6.



Fig. 6.2 Mechai's innovative Bamboo School in Buri Ram (Photo courtesy of Mechai Viravaidya and PDA)

Fig. 6.3 Extended primary school (opportunity expanding school) in Seka District, Bueng Kan Province, in the remote northeast (part of the Princess' project to assist remote disadvantaged areas) (Photograph provided by Dr. Rosarin Apahung)



After primary education was transferred to the Ministry of Education in 1980 with the passage of the National Primary Education Act, this opened the doors for the establishment of these opportunity expanding schools. These schools expanded their curriculum to include 3 years of lower secondary school (grades 7–9) to facilitate children in remote rural areas having better access to secondary education close to home. Within an 8-year period, these schools increased to 6600 or 22% of all primary schools and were able to offer opportunities to 21% of students at the 3-year lower secondary education level (Kasama 2006). The basic problem with such schools is find adequate numbers of teachers who are qualified to teach specialized subject areas such as math, science, and English (Fig. 6.3).

6.5.12 *Special Schools to Serve Disadvantaged Children Without Access to Regular Public Schooling* (See Chap. 12)

There are three major types of these schools. Some are supported by charities and foundations. An example would be the Bangkok School for the Blind established in 1939 by the American, Miss Genevieve Caulfield. Its funding is from the Foundation for the Blind in Thailand and it is considered a nonprofit private school. Others are supported by regular government budgets, and special education was a priority articulated in the 1999 National Education Act (ONEC 1999). As of 2006, there were 43 specialized schools run by the government to serve over 15,000 disabled students. At that time, there were also over 1500 integrated schools bringing in over 150,000 disabled students into mainstream education. Other schools serving the disadvantaged have been established by diverse NGOs in Thailand, both national and international. International NGOs have been active in establishing these kinds of schools in refugee camps.

6.5.13 *Welfare Schools*

These are special government schools which provide fully subsidized education to a wide range of marginalized children such as those with HIV, street children, and others facing difficult circumstances. As of 2006, there were 45 such schools serving over 40,000 students.

6.5.14 *Nonformal Education Secondary Equivalency Courses*

While not formally “schools,” these special programs are extremely important in providing citizens an opportunity for a second chance to complete secondary education. As of 2006, there were over 500,000 learners in such programs with diverse curricula, delivery systems, and mechanisms for building on the life and work experiences of learners (see Chap. 8).

6.5.15 *One District One Lab School/One Scholarship Initiative*

This major initiative of the MOE was to have one high-quality school in all 921 districts of Thailand and to provide one scholarship for a talented student from each district to pursue university studies in Thailand or abroad. This was an extremely ambitious program to reduce regional disparities and those between urban and rural areas. This visionary ideal was, however, difficult to implement in practice.

6.5.16 *Bilingual Schools*

With the growing force of globalization and the inception of the AEC at the end of 2015, these schools are growing in popularity. There are two basic types, English Programs (EP) which offer 18 or more hours of instruction in English and Mini-English Programs (MEP), which offer 15 h or less. They are basically English-across-the-curriculum programs where in the EP programs all subjects are normally taught in English except Thai and social science courses related to Thai history and culture. It is thought that the graduates of these programs will be better prepared to have the critical skills needed to meet the workforce challenges of the twenty-first century. Table 6.5 presents data on the number and location of these schools in Thailand, indicating that there are now an impressive total of 821 bilingual schools in Thailand. That there are 70 bilingual schools in the remote northeast confirms Keyes (2014) argument about the increasing cosmopolitan nature of this region.

Table 6.5 Number of bilingual English programs by type and region

Government schools	English programs (EP)	Mini-English programs (MEP)
Primary	24	102
Secondary	105	92
North	9	25
Northeast (Isan)	25	45
Central	76	82
South	19	42
Private schools		
General	168	
Vocational	7	
Total	433	388

6.5.17 *International Schools*

Established in the 1950s, there were the original “Big Three” international schools, namely, the International School of Bangkok (ISB), established in 1951, Ruamrudee International School (RIS), and Bangkok Patana School (BPS), both established 6 years later. These schools were exclusively for the children of expatriates and Thai nationals were not allowed to attend. With the accelerating forces of globalization and the Thai government’s decision in 1990 to allow Thai nationals to attend such schools, they have expanded dramatically in recent decades. There are now 176 international schools in Thailand and they continue to grow rapidly in number (see Chap. 11).

6.5.18 *Home Schools*

Provision was made for home schooling in the 1999 National Education Act. In recent years, the number of home schools has been steadily increasing. Actually, the late prominent educator, Dr. Sippanondha Ketudat, was largely home schooled and went on to get a doctorate in nuclear physics at Harvard (Sippanon and Textor 1990). Much more recently, Dr. Pichamon Yeophantong (2012) received her doctorate in Australia at the young age of 23, after having been home schooled. She is now teaching at an Australian university.

6.6 **Current Situation and Internal Pressure Toward Reform**

Thailand has dramatically improved its education system in terms of equal access to compulsory education and also some improvements in education quality as reflected by average PISA scores in 2015 which are also higher than expected as compared to

Table 6.6 Asian countries average reading performance in PISA and national wealth (per capita GDP)

Country	Science	Reading	Mathematics	Average	Ranking	GDP per capita
OECD Average	493	493	490	492		
Singapore	556	535	532	541	1	\$87,100
Japan	538	516	555	536	2	\$38,900
Chinese Taipei	532	497	542	524	3	\$47,800
Macao(China)	529	509	544	527	4	\$96,100
Vietnam	525	487	495	502	5	\$6400
Hong Kong	523	527	548	533	6	\$58,100
B-S-J-G (China)	518	494	531	514	7	\$15,400
Korea	516	517	524	519	8	\$37,900
Thailand	421	409	415	415	9	\$16,800
Indonesia	403	397	386	395	10	\$11,700

Source: OECD (2015) PISA results by country; The United States 2017. *The World Factbook*

Table 6.7 Average academic performance in PISA and national wealth (per capita GDP)

Country	Science	Reading	Mathematics	Average	Ranking	GDP per capita
OECD Average	493	493	490	492		
Costa Rica	420	427	400	416	1	\$16,100
Mexico	416	423	408	416	2	\$18,900
Thailand	421	409	415	415	3	\$16,800
Colombia	416	425	390	410	4	\$14,200
Jordan	409	408	380	399	5	\$11,100
Indonesia	403	397	386	395	6	\$11,700
Brazil	401	407	377	395	7	\$15,200
Peru	397	398	387	394	8	\$13,000
Lebanon	386	347	396	376	9	\$18,500
Tunisia	386	361	367	371	10	\$11,700

Source: OECD (2015). PISA results by country; The United States (2017). *The World Factbook*

countries with the same or comparable levels of GDP per capita (Benveniste 2008) (Table 6.6). Thailand's PISA scores, for example, are higher than seven countries and roughly equal to two countries with similar or higher incomes per capita (see Table 6.7). Table 6.6 shows Thailand's performance compared to other Asian countries. Vietnam is the real outlier in this table with its performance far exceeding what might be expected, given its level of economic development (Fry and Huong 2011; Pfeiffer 2016).

However, the latest PISA results are still far from satisfactory with Thailand ranking 54th out of 72 participating nations. The issue of quality is still one of the persistent problems of Thai education along with the problem of children dropping out of school, the widening gap of quality between rural and urban schools, and the shortage of quality teachers in core subjects (Commission on Education Reform, National Reform Council 2015) (see Chap. 14). Another hard fact of the present

Table 6.8 Student retention rates, grades 1–12, academic year 2002–2013

Grade	Year	Students	Retention rate
1	2002	1,089,166	100
3	2004	1,008,420	92.6
6	2007	999,241	91.7
7	2008	970,327	89.1
9	2010	900,199	82.7
10	2011	795,956	73.1
12	2013	686,228	62.6

Source: Office of the Education Council (2014)

system is that approximately 70% of Thai students enter the world of work unskilled with over 40% finishing only grade 9 or lower (Quality Learning Foundation 2014). Table 6.8 indicates that only 55% of students starting primary school eventually complete upper secondary school. That ratio needs to improve with fewer students dropping out of the system resulting in greater numbers of students completing upper secondary education.

These are just a few key empirical indicators showing the critical necessity for reforming the system. For secondary education in particular, with approximately 2500 schools ranging from top-class international schools in metropolitan Bangkok packed with thousands of students, many from well-to-do families, to the smallest secondary school of the country with only 28 students situated in a remote rural area in the poor northeastern region (Office of the Education Council 2014; Association of Secondary School Administrators 2015), the key challenges are not only those issues discussed above but also the fundamental rethinking of the system so as to improve quality, relevance, equity, and access.

6.7 Global Forces as an Additional Stimulus for Reform

The Thailand Research Fund (TRF) has started the project INTREND (Innovation and Trends in Educational Movements) to review education reform movements in countries across every continent. In 2014, the project produced the following conclusions regarding major changes needed in school systems around the world (Chulakorn et al. 2015), some of which have influenced rethinking the Thai education system as well:

6.7.1 Toward New Skills and Learning Environments

The widespread trend around the world has moved toward the new *open classroom* where the objective is to help students learn key twenty-first-century skills more effectively. The notions of the “7Cs” (Critical Thinking, Creativity, Collaboration,

Communication, Computing, Cross-cultural Understanding, and Career Skills) and the “2Ls” (Learning Skills and Leadership) are now well-established in current thinking informing the Thai education reform movement. Such notions also include the proposition that a new learning environment must be built in our schools and classrooms to accommodate new pedagogical approaches such as research-based learning (RBL), problem-based learning (PBL), work-integrated learning (WIL), and service learning, for example. The emphasis is placed on not only *skills to compete* but also the *skills to live* as well so that our new generations can cope with an increasingly complex globalizing world.

6.7.2 *Providing Meaningful Learning Through Content Revival*

The new content condensed from a comprehensive review uncovers three major areas for reform. First, the new content should direct more attention to *meaningful learning* for our students. Some of such enhanced learning content exemplified in curriculum reform in many countries includes future studies and scenario planning (USA), alternative energy (many European countries), and disaster education (Japan, Indonesia) as examples. The second area of emphasis focuses on *life skills* content such as sex education, media education, civic education, and conflict resolution. Even conventional subjects such as history are under critical review in countries like Japan and Hong Kong so as to lay a strong foundation for their respective future citizens. The third and final area that needs significant reform is the *career-oriented curriculum* in order to prepare our youth more effectively for the future world of work. *Learning how to learn* on one’s own is increasingly important in an information era and a knowledge economy. A number of initiatives have been identified as good practices that could be realistically utilized in Thai schools, especially at the secondary level. Concrete examples are the *career academy* curriculum in many states in the United States; the simplified and practical subjects in economics and investment in many countries; the *studio classroom* for creative subjects like design and innovation in a number of advanced, industrialized countries; and *farm-based learning* in some of the less developed countries. These are some of the new initiatives clearly articulated in the current reform plan for Thai education.

6.7.3 *New Management System to Promote Diversity and Innovation and to Be More Responsive to Local Needs*

The last area for reform calls for *education decentralization* which has been successfully implemented in many democratic countries. It has been evident in Thai education that the root cause of most of the persistent problems in our education

system lies with our century-long overly centralized education bureaucracy (see Chap. 20). It is also noted that with the special emphasis on *Education for Life and Career*, the new reform can only be made possible by a new management approach involving a radical move for government reform and downsizing along with a strong move toward *area-based education (ABE)* more responsive to local contexts, needs, and demands (Chuachan and Aroonsi 2013). It is also noted that the new decentralization plan and area-based reform call for both adequate *area-based information systems* and *multiparty local participation* to sustain the long-term success of the plan.

At the macro level, the plan also includes a major reform in the education budgeting system that should pave the way for area-based financial allocations and more autonomy at the school level in terms of decision-making about resource utilization. More details are provided on the ABE innovation and its current piloting in Sect. 6.9.2 below.

6.8 New Paradigm for Rethinking Thai Education

As the Thai education system needs a dramatic reform so as to cope with many of the serious problems within the system as well as to respond effectively and creatively to the new learning needs of the coming generations, it is obvious that the system not only needs major structural reforms but also requires a new paradigm of thinking in providing a more responsive secondary education for Thai youth seeking a better and more productive working life after completing their formal schooling (see Chap. 19). The new education paradigm for the future of Thailand includes:

- The notion of lifelong learning for the whole population for continuous self-improvement of both the new workforce and those already in various production and service sectors. This notion also embraces the provision of lifelong learning for the aging population to prolong their productive life as Thailand is rapidly moving toward becoming an aging society.
- The notion of life, working, and citizenship skills as the key emphasis of new learning, an important notion that must be realized for the students in order to prepare them for the world of work and the more complex lifestyles of modern society.
- The notion of area-based approach in education provision to respond to the specific socioeconomic needs of each area of the country, including the emerging “Special Economic Zones” following the government’s mega-projects linking transportation systems among the continental ASEAN countries and with China and India.
- The notion of a changing role of the government from *provider* to *regulator* to support decentralization as a key instrument for reform and for the *downsizing* of the central agencies.

- The notion of *multiplayer system* to promote participation from all parties concerned, especially those from private *real production sectors* and local administrative bodies to help realize the new concept of *Learning for Life and Career* in schools.
- The use of *demand-side financing* as a key leverage for quality improvement and healthy competition within the system and also a key strategy for promoting effectiveness, efficiency, and transparency of the system.
- The development of new learning assessments to help students' individual improvements throughout their school life alongside the new assessment competencies needed for strengthening the teaching profession.
- Promotion of media-based learning as an integral part of the new curricular system and perhaps the most powerful part of the new learning system that better fits the lifestyles of the new more tech-savvy generation.

The new paradigm reflects not only the new way of thinking in solving so many persistent problems in Thai education but also provides a special opportunity for the whole system of learning to adjust itself to meet the rapidly changing needs and challenges the country is facing. In the more competitive and yet cooperative world, it is hoped that the Thai education system can respond to the demands of the new context and becomes the key engine driving the nation to a bright and sustainable future.

6.9 Current Movements Toward Reform

As the government recently announced the “Thailand 4.0” as a blueprint for future economic development of the country, the secondary education system has been a priority target for major reform by the Ministry of Education. The main objective is to redesign secondary education so that more students turn to the vocational or career-oriented track to meet the challenges of the new economic reform plan (see Chap. 7). As the country critically needs more highly skilled workers as well as entrepreneurs to realize the ambition of becoming an innovation-driven economy, the following are some of the key initiatives to meet such needs:

6.9.1 Education for Skill Development and Employability

The issue of employability and skill development was a common issue stressed at the 5th ASEM Meeting in Latvia in April 2015. It seems that every country is facing a common problem of its education system falling behind the rapid change and development in the production sectors and their respective labor markets. For secondary education in particular, this notion also received serious consideration from education leaders around the world as youth in most modern societies tend to enter

the job market inadequately prepared for the world of work (*ASEM Secretary Report 2015*).

In the case of Thailand, the effort to transform some of the secondary schools into prevocational schools has already started in selected industrial provinces, whereas a majority of students exit schools at grade 9 to become cheap, unskilled labor. The so-called *comprehensive school* and *dual curriculum* have provided students with the opportunity to explore more career choices and learn more specific vocational skills demanded by the modern labor market. The pilot project has provided satisfactory results as reflected in the increasing number of students participating as well as the feedback from the private sectors involved. The *career academy* project initiated by the Quality Learning Foundation (QLF) modeled after those in the United Kingdom and the United States is another interesting alternative for upper secondary school students. The project is currently being piloted in eight provinces of the country.

There are, however, some shortcomings such as the lack of effective career counseling and inadequate incentives for many other industrial sectors to participate fully in this joint effort to motivate lower secondary school students to turn to the vocational track. There is also the lack of systemically planned career paths as another key incentive for vocational students (Ministry of Education 2015a, b). The MOE and other concerned agencies will definitely pursue these initiatives further and expect the future graduates from secondary schools, both at compulsory grade 9 and grade 12, to be better equipped with the knowledge, skills, characteristics, and confidence for successfully entering the modern rapidly changing labor market.

Furthermore, with regard to the notion of lifelong learning, the idea of employability and skill development also embraces the new target which is the current 35–40 million individuals currently in the workforce already employed in various sectors, including approximately 11 million in the agricultural sector, 12 million in the industrial sector, and 7 million in the public sector (The Federation of Thai Industries 2014). At the moment, the NRC places lifelong learning and continuous skill development for the current workforce as a very high priority on its education reform agenda. This effort has important implications for secondary education as well. Critical to genuine secondary education reform is not only equipping students with working skills but also learning skills and aspirations to make lifelong learning a meaningful and living reality for our workforce (Commission on Education Reform, National Reform Council 2015).

6.9.2 Toward an Area-Based, Multi-actor System of Education

The new education paradigm *Education for Life and the World of Work* jointly pushed by the MOE, the NRC, and the NLA has led to an even more challenging new concept of education management and provision. The *area-based education* (ABE) approach is now seen as another key element of the reform agenda in

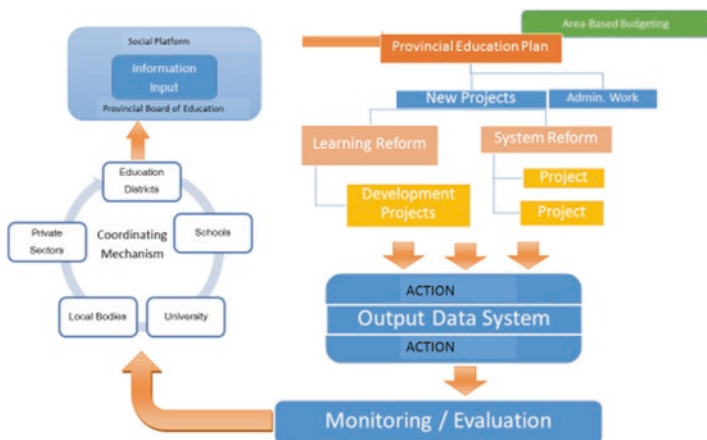


Fig. 6.4 The area-based education management model (Source: Silaporn 2014)

providing education that is responsive to the diversity of the socioeconomic demands of specific diverse areas of the country, including the *special economic zones* identified by the government following its mega-projects in the next 4–5 years linking the transportation systems of all continental ASEAN and Asian countries including India and China (Office of the Prime Minister 2015). Chiang Mai is to become a new regional trade center connecting China and ASEAN countries, while Yala, Patani, and Narathiwat, the three southernmost border provinces, can potentially become a logistic hub expanding trade markets between Thailand and the ASEAN Muslim countries, namely, Malaysia, Indonesia, and Brunei Darussalam. Given this new regional context, the innovation of area-based education is a timely response in providing the Thai workforce with necessary skills required by the needs for a country aspiring to be a dynamic competitive trading nation in ASEAN and the world community (Chuachan and Aroonsi 2013; MOE 2016; National Reform Council 2015a, b) (Fig. 6.4).

Currently, there are 14 provinces participating in the ABE project co-funded by the Thailand Research Fund (TRF) and the Quality Learning Foundation (QLF). In these provinces, there are some key tasks currently being undertaken such as the formation of provincial *boards of education*, a still informal body comprised of all parties concerned to supervise educational policy and planning in each province and the development of provincial education databases to support area-based education and human resource development planning (Chuachan and Aroonsi 2013; Thailand Research Fund 2015). The NRC is planning to propose a new law to the government and the NLA to recognize these provincial bodies legally so that they will become a key factor contributing to education reform in the future (National Reform Council 2015a, b). On March 21, 2016, the government, using Article 44, introduced a new decentralization policy shifting the focus of local decentralization to be the province, not the ESA (see Chaps. 4 and 27) (MOE 2016).

6.9.3 *Autonomy, Accountability, and Changing Government Roles*

To promote learning innovation at the school level as well as the responsiveness of education to local needs, it is imperative that our schools must have more autonomy in curriculum implementation, personnel recruitment, and resource utilization. The MOE at the moment is piloting with 300 schools in 20 education districts in the project *Autonomous Schools for Learning Reform* as a pathway toward unlocking the administrative constraints to stimulate new alternatives in these schools that directly affect student learning in a short run and could be scaled up to thousands of other schools in the long run (Steering Committee on the Project Autonomous School for Learning Reform, Ministry of Education 2015a, b). At present, school administration, by law, has only limited decision making power regarding both instructional personnel and resource management. With the new paradigm *education for life and career* along with the pilot project of the ministry mentioned above, it is expected that the project will come up with a set of critical recommendations to promote such autonomy at the school level.

At the same time, the new mechanism for assuring good governance and accountability must be set out alongside the increase in school autonomy. The strengthening of the role of school boards, the strategy to promote community involvement, and the school's *report card* are among the measures being thought out in the education reform plan of the NRC (Commission on Education Reform, National Reform Council 2015). The new incentives scheme for rewarding good practice in school governance is another strategy under consideration by both the NRC and the MOE.

Lastly, all these current movements toward increasing school autonomy and accountability call for a drastic change and transformation of the roles of the MOE from *provider to regulator*, a new emphasis that will put central agencies in more regulative and supportive roles in promoting *quality education for all*. The NRC and NLA are working together with the MOE in revising the National Education Act 1999 to put greater emphasis on school autonomy and accountability. The NRC in particular, in its education reform plan, also includes the notion of autonomy and accountability as another critical strategy for improving the quality of education, especially at the basic education level (Commission on Education Reform, National Reform Council 2015).

6.9.4 *New Competencies of Teachers and Administrators*

The more diverse learning environment along with the increasing autonomy and accountability at the local school level also require a new set of competencies for both teachers and administrators. In the area of curriculum and instruction alone, there is a critical movement at the international level calling for pedagogical reform to respond to the new learning styles in the digital age (*ASEM Secretary Report*

2015). The reform movements across the globe together point out a real need for radical reform in the teaching profession, from new alternatives in teacher training and recruitment to teacher performance assessment. In the case of Thailand, the MOE together with the related commissions of NRC and NLA, all agree that the systematic reform of the teaching profession is the most important key to success in providing better education for the new generation of students (see Chap. 18).

More specifically, in the *Blueprint for Reform* of the Commission on Education Reform of the NRC, in congruence with the MOE policy, it covers some of the major reform issues in the teaching profession including:

- Moving the teacher training system toward a more competency-based curriculum based on a new set of capabilities required by both the new mode of learning as well as the new management autonomy at the school level.
- Changing professional development of in-service teachers toward the *coaching* mode in place of the conventional *training* mode, a change based on research evidence which has demonstrated that teacher coaching is a much more effective means for teacher learning.
- Strengthening education faculties to meet new demands. At the moment, there are more than 50 colleges of education across the country. The effort will call for a realistic profiling of all those colleges in order to identify centers of excellence in teacher education in each subject or area of study, a necessary step to reinvest wisely in our colleges of education.
- Improving work conditions of all teachers, especially reducing the non-teaching activities that take away teacher-student contact time inside and outside the classroom. Some of these efforts have already been achieved by the MOE, notably the new regulation to reduce non-teaching activity time to less than 10% of the total time of instruction per academic year, a considerable improvement based on prior surveys which found that some of our teachers spend as much as 42% of their time on non-teaching activities. This may partially account for the paradox of large class sizes mentioned earlier.
- Revising the criteria for teacher's career paths and academic promotion, an effort that has also been succeeded by MOE through the Committee on Teachers and Education Personnel. The new criteria will be more focused on student learning improvement as the key criteria for teacher promotion.

There are also some key projects already started to accommodate such reform efforts, i.e., the project *Kuruthayat* (ครูทายาท) (*Teachers' Successors*) aiming to produce some 68,000 teachers in a new mode of training for the next 15 years, the multilateral cooperative project with international universities to produce some 14,000 new doctorates in various disciplines, 10% of which will be in the areas of education in order to strengthen the long-term capability of the colleges of education, and the capacity-building project for the "New University, namely, the 38 Rajabhat and 9 Rajamangala Universities cluster, including the capacity to become regional hubs for in-service teacher professional development (Office of Higher Education Commission 2015).

6.9.5 *Reinvesting in Secondary Education*

Many of the abovementioned projects or reform issues imply a serious reinvestment in our secondary education system. By international standards, Thailand lags behind in providing resources for secondary education (Benveniste 2008). The scope of the new investments may range from the production of high-quality teachers in STEM education (Science, Technology, Engineering, and Mathematics) to new ICT infrastructure to enhance learning and to the setting up of provincial centers for teacher professional development. The new investments will likely include expenditures required to support the *dual curriculum* to prepare secondary students more effectively for the world of work. These new investments have already been identified as part of the reform plan presented to the NRC (Commission on Education Reform, National Reform Council 2015) and are expected to receive full support as the country faces a serious shortage of skilled workers to facilitate economic recovery.

6.10 **Conclusion: Sustaining Long-Term Reform Effort Is the Key**

Lastly, many reform efforts, plans, and measures identified and described throughout this chapter will require *political and policy continuity* as the most necessary condition in order to become reality. There were too many lessons learned in the past about how political instability or political interference had hurt or twisted the reform process. This is the main reason behind the proposition by the Commission on Education Reform to the NRC that a *Super Board* be established to sustain long-term reform without any unproductive political influence. Although such a national coordinating body, chaired by the prime minister, will have executive power to make decisions regarding strategic use of resources to support the reform plans, the ultimate power of this national board will come from two of its important strategic arms, one is the Education System Research Institute and the other is the National and Provincial Education Assemblies, both of which have been included in the proposal to the NRC alongside the setting up of the *Super Board* or officially the National Commission on Education and Human Development (Commission on Education Reform, National Reform Council 2015). It is hoped that with such a design of a national inter-ministry, inter-sectoral coordinating body, the upcoming reform effort will be a self-correcting, self-adapting process based on both research evidence and full participation from all key stakeholders.

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Chapter 7

Vocational Education in Thailand: Its Evolution, Strengths, Limitations, and Blueprint for the Future



Yongyuth Chalamwong and Wanwisa Suebnusorn

Abstract This chapter presents the context and evolution of vocational education in Thailand and the authors' insights into the Thai vocational education system in terms of its strengths and limitations. It utilizes both SWOT (strengths, weaknesses, opportunities, and threats) and PEST (political factors, economic factors, sociocultural factors, and technological factors) analysis frameworks. The chapter demonstrates how the Thai vocational education system, which currently reflects the metaphors of “impossible dream” and “a tale of two cities,” can perform better in order to serve as a key engine bringing Thailand toward prosperity under the Thai government’s slogan “vocational education for nation building.”

7.1 Introduction and Background

At the time of this manuscript preparation, various media in Thailand are reporting an increasing popularity of the vocational education track among Thai youth. This news is pleasing many Thai educational planners and policy makers. In a country like Thailand where the *diploma disease* (Dore 1976) has been pervasive and the kind of degree or certificate possessed strongly influences opportunities in a hierarchy of jobs ranked by power, income, and prestige, vocational education has been considered as an option for low academic achievers and/or students from a humble background. For middle and upper class youth, their norm is, on the contrary, to choose the general secondary education track as a direct pathway to receive higher education degrees. *Rian pen chao khon nai khon* (‘เรียนเป็นเจ้าคนนายคน’) (learn so as to be the boss of others) is what the Thais have been inculcated with for generations.

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During 2005–2010, the Ministry of Education (MOE) reported a significant increment in the numbers of upper secondary education students both in the vocational education and general education tracks. Unfortunately, the proportion of students in the general education track had increased at the expense of those students in the vocational education track. In 2005, the ratio of general to vocational upper secondary education students was 60:40, and in 2010 the situation became undesirable when the ratio turned to 64:36 and 69:31 in 2015 (MOE 2016). There is also concern about the fields of study. The growth rates of vocational education students were calculated for each field of study between 2005 and 2010, and it was found that a positive growth rate of 77.1% was found for the tourism industry, while the growth rate of the industrial engineering field was only 8%. More vocational education students in science and technology are critically needed (see Chaps. 16 and 17).

Krissanapong et al. (2012) estimated that if this trend persists without government interventions, the proportion and actual number of students in vocational education will constantly decrease. They further report that the reasons students selected general upper secondary education are (1) self-esteem (45%); (2) influence of parents, relatives, or friends (21%); (3) opportunities for further education (17%); and (4) desire for higher education certificates and career advancement (17%). As for vocational upper secondary education students, their reasons to study vocational education are (1) preference for practical-based learning over theoretical learning (39%); (2) urgent demands and needs of the Thai labor market (22%); (3) less difficult and less competition (20%); (4) influence of parents, relatives, or friends (14%); and (5) affordable tuition fees (5%).

For educational policy makers believing in the *social demand approach* to educational planning, the thirst for higher education among the Thais may not be something that we should discourage. The proponents of this approach argue that higher education should be provided to all qualified candidates because it is difficult to force young people to study subjects in which they are not interested. Also it is exceedingly hard to forecast in advance what kinds of training will be needed in a rapidly changing economy (Bereday et al. 2006; Did you know? 2018).

Unfortunately, in the era of massification and universal access to higher education in Thailand, more than 120,000 Thai university graduates are unemployed yearly, and the percentage of unemployed with higher education certificates has been much more prevalent compared to their less educated counterparts (see Chap. 9). The research of our Labor Development Division at the Thailand Development Research Institute (TDRI), commissioned by the Office of Education Council (OEC), Ministry of Education, showed that the Thai labor market is currently in urgent need of mid-skilled human resources, while the demand for higher education workers in the labor market has failed to keep pace with the rapid increase in the supply of higher education graduates (TDRI 2010). In addition, to escape the middle-income country trap, Thailand needs to improve the productivity of Thai laborers by employing semi-skilled and high-skilled workers excelling in advanced technologies. Thailand can no longer rely on cheap unskilled labor as the country's minimum wage (roughly \$10 per day) is among the highest in Southeast Asia, while the productivity of Thai labor has been increasing only 3% per year. The noted

economist Nobel laureate Paul Krugman (1996) argues that the economic future of any country depends on the productivity of its people. During its period of high economic growth, 1960–1990, Japan’s productivity per person increased faster than at any time in world history (Nihon Seisensei Honbu 1989).

Our own perspective leans toward the *market requirement approach* to educational planning. We call for a more labor market demand-driven educational system as the Thai one has been too supply-driven. Educational institutions produced graduates based on their expertise and availability without sufficient consideration for the demands of the labor market and future job prospects for their graduates. Our goal is to improve the quality of vocational education and increase the percentage of students choosing this track as much as possible. Recently, as part of a series of initiatives for human resource production and development during the second decade of education reform (2009–2018), the MOE established a goal that the proportion of vocational education students to general secondary education students at the upper secondary education level should be 60:40 (OEC 2011). This is an extremely ambitious goal and might be an “impossible dream.”

In this chapter, we first provide the context and evolution of the Thai vocational education system, followed by an analysis of its strengths, weaknesses, opportunities, and threats (SWOT analysis). Those strengths and weaknesses refer to the internal factors within the vocational education system, while the opportunities and threats or the external forces are analyzed by the PEST (political factors, economic factors, sociocultural factors, and technological factors) analysis framework. We hope that our critical analyses of historical trends as well as identifying both facilitators and obstacles of the Thai vocational education system will provide insight into how the vocational education system can perform better and how it can serve as a key engine bringing Thailand toward prosperity.

7.2 The Evolution and Changing Contexts of Thai Vocational Education

7.2.1 *Historical Overview and Trends of the Thai Vocational Education System*

The history of vocational education in Thailand dates back to the late nineteenth century, when Thai citizens increasingly earned their living through handicraft professions instead of relying principally on agriculture. The systematic form of vocational education was included in the Educational Project B.E. 2441 (1898) as *special education (kansueksapiset)* (การศึกษาพิเศษ), or an education in specific subjects for enhancing specific skills and expertise. In 1909, education in Thailand was divided into two types which were *formal schooling (samansueksa)* (สามัญศึกษา) and *non-formal schooling (wisamansueksa)* (วิสามัญศึกษา). Formal schooling offered general subjects, while nonformal schooling offered vocational subjects such as medicine,

midwifery, nursing, English, commerce, and teaching. The commercial schools at Wat Maha Phruttharam and Wat Ratchaburana were established as the first vocational schools in the country in 1910. The Pohchang Academy of Arts and the Teachers' Training School of Agriculture were established in 1913 and 1917, respectively (VEC 2016) (<http://www.vec.go.th/>).

Vocational education in Thailand became increasingly prevalent when the National Education Plan B.E. 2475 (1932) recognized the importance of this area of learning. The plan defined *nonformal schooling* as vocational subjects taught in compliance with the national context and geography, e.g., agriculture, handicrafts, and commerce, which equipped students with fundamental skills in agriculture and industry. Nevertheless, the term *vocational education* did not yet appear until it was first coined in the National Education Plan B.E. 2479 (1936). At that time, vocational education was divided into three levels, namely, fundamental, intermediate, and higher vocational education, and recruited students who had completed formal education schools (VEC 2016).

The critical point in the history of education is that over the entire 100 years of its evolution, it has needed to “play catch-up” with general education that was developed earlier. Both the National Education Plan 1932 and 1936 emphasized only three educational domains, namely, the affective domain (*chariyasueksa*) (จริยศึกษา), the cognitive domain (*phuthisueksa*) (พุทธิศึกษา), and the psychomotor domain (*palasueksa*) (พลศึกษา), and the German educational philosophy valuing craftsmanship (*hatthasueksa*) (หัตถศึกษา) (India Jana Duniya 2016). Thai vocational education was later added to the National Education Plan B.E. 2494 (1951) as the fourth pillar of Thai education. Besides, vocational education has not been considered as a direct pathway to universities because higher education had been reserved only for the top students who completed general upper secondary education. The most obvious historical evidence in this regard is the educational policies articulated in 1932 by Phraya Manopakorn Nititada, the first Prime Minister of Thailand, which stated that:

In terms of vocational education, the government shall soon establish nonformal schools offering courses in agriculture, handicrafts, and commerce at the primary education level and higher in order to eliminate the dominance of formal schooling. Higher education institutions offering degree-level courses like in advanced countries shall be provided to Thai youth. Comprehensive upper secondary education schools preparing students for universities shall be established in regional hubs so that intelligent students in provincial areas will have better access to this level of education.

The National Education Plan 1936 also required that those who desired to pursue university education must complete *triamudomsueksa* (เตรียมอุดมศึกษา) or 2-year upper secondary education preparing students for universities.

As the latecomer, vocational education had been originally placed in an inferior administrative position compared to its general education counterpart. In 1938, vocational schools had been supervised by just a division in the Department of Curriculum and Instruction Development, while formal education schools were managed by the Department of General Education. According to the Royal Decree

of Structural Reform of the Dhammakan Ministry, two departments were established, namely, the Department of General Education and the Department of Curriculum and Instruction Development. The Vocational Education Division was included in the latter together with the Office of the Secretary, Textbook Division, and Examination Division. Later on, the Dhammakan Ministry was renamed as the Ministry of Education according to the Restructuring of Government Agencies Act B.E. 2484 (1941). Under the promulgation of this act, the Technical Department was downsized to be the Technical Division, and the Department of Vocational Education was established. This newly established department was divided into three divisions which were the Secretariat Office, School Division, and Academic Division. On 7 July 2003, the Department of Vocational Education was upgraded to become the Office of the Vocational Education Commission, announced in the 2003 *Government Gazette* (<http://www.vec.go.th/>). Within this newly structured Ministry of Education, the Office of the Vocational Education Commission now has an equal bureaucratic status with the Office of the Basic Education Commission, the Office of the Higher Education Commission, the Office of the Permanent Secretary, and the Office of the Education Council. These major offices are considered as the “five pillars” of the restructured Ministry of Education.

Despite inferiority complexes associated with vocational education throughout its evolution, the government has made ceaseless efforts to improve Thai vocational education both in terms of quantity and quality. During the period of the US war in Vietnam, the Department of Vocational Education was faced with shortages of instructional materials as well as teachers and educational personnel. However, after the war, the government allocated more budget to vocational education in order to help improve the situation.

In collaboration with the government of Germany, the Department of Vocational Education established Khon Kaen Technical College in 1965. In 1969, the Thai-Austrian Technical College was founded in Chonburi Province by the constructive cooperation between the Thai government and that of Austria. During this period, many vocational education institutes started offering education at the diploma level and were authorized as colleges. The first college established by the Department of Vocational Education was Phranakorn Commercial College. In 1971, King Mongkut’s Institute of Technology, which had three campuses in North Bangkok, Thonburi, and Ladkrabang, was established by the amalgamation of North Bangkok Technical College, Thonburi Technical College, and the Telecommunication College in order to produce vocational education school teachers. It has now become a major research university (see Chaps. 9 and 16). As of 1979, there were 90 colleges out of 159 vocational education institutes under the Department of Vocational Education. A certificate in vocational education was launched in 1981. Vocational education and higher technical diplomas were introduced in 1984. In 1990, a higher diploma in teaching technology was also launched. Between 1990 and 1992, 20 vocational education institutes were established, and during 1992–1996, the government set up 93 more vocational education institutes in order to serve rural needs. In 1995, the Department of Vocational Education developed information and communication technology infrastructure in order to provide distance vocational education. In 1997,

the government supported the establishment of 70 industrial and community education colleges, 19 technical colleges, and 2 colleges of business administration and tourism. In 1998, the Pathumwan Institute of Technology was granted authority to provide bachelor's degree level courses in science and technology (Krissanapong et al. 2012).

As of 24 June 2015, there were 426 vocational education institutes in Thailand under the jurisdiction of the Vocational Education Commission, and they are categorized as follows: 128 technical colleges, 37 vocational colleges, 43 agricultural and technology colleges, 52 polytechnic colleges, 136 industrial and community colleges, 5 commercial colleges, 3 industrial and ship building colleges, 2 arts and crafts colleges, 4 business administration and tourism colleges, 3 fishery colleges, 1 Kanchanapisek Golden Jubilee Royal Goldsmith College, 9 colleges of technology and management, 1 science-based technology vocational college, 1 vocational education college, and 1 fishery and agricultural technology college. The student to teacher ratio in vocational schools under the jurisdiction of the Office of the Vocational Education Commission and the Office of the Private Education Commission in 2012 was at 26.2:1 and 21.2:1, respectively (<http://www.vec.go.th/>). These figures are considered acceptable and meet international standards. Unfortunately, there is a high turnover rate among vocational school teachers who have not yet received official government status, and many vocational school teachers are assigned to teach in subjects outside their areas of expertise (*Tul Na Rachadamneon 2011*).

In terms of quality development, for decades, the Thai government has collaborated with other countries and international organizations to improve Thai vocational education. In 1967, the Department of Vocational Education established the World Bank Loan Office responsible for cooperating with 25 colleges for the development of industrial and agricultural education. In 1988, the government of Germany supported the development of dual vocational training in Thailand. Germany is renowned for the use of dual vocational training to prepare skilled technicians for its labor market and is among the world leaders in foreign exchange holdings, based primarily on its export competitiveness. Between 1989 and 1990, the Institute of Vocational Teacher Competency Development was established with the assistance of the United Nations Development Programme (UNDP). In 1990, additional assistance was received from Denmark, Austria, Japan, Canada, Italy, the International Labour Organization (ILO), and United Nations Education, Scientific, and Cultural Organization (UNESCO). During 1993–2000, the Overseas Economic Cooperation Fund of Japan subsidized the budget of the Department of Vocational Education to develop education in the area of mechatronics. In the year of comprehensive education reform in 1999, the Department of Vocational Education received a loan from the government of Denmark for the development of agricultural education to strengthen teacher competencies and instructional materials (Krissanapong et al. 2012).

Radical changes in vocational education have been implemented since the education reform of 1999. The National Education Act B.E. 2542 (ONEC 1999) and amendments in its Section 6, Paragraph 47 mandated the establishment of an educational quality assurance system for all levels and types of education. This act

resulted in the passage of the Vocational Education Act B.E. 2551 (2008) and the Thai Qualification Framework for Vocational Education (TQF: VEd or TVQ) B.E. 2554 (2011). In 2011, the Thailand Professional Qualification Institute (public organization) was founded to promote a professional qualification system in Thailand. More specifically, the first decade of the education reform (1999–2008) led to the first Vocational Education Act which aims to ensure quality while promoting a more decentralized vocational education system to widen participation of the unreached and to foster the active involvement of the industrial and service sectors. The second decade of education reform (2009–2018) has emphasized quality more than access (OEC 2009). It has stressed the development of vocational education standards, TVQ, and collaboration between schools and enterprises in order to ensure the employability of graduates (Siripan et al. 2012).

7.2.2 Current Vocational Education Reform Initiatives

The second decade of education reform (2009–2018) has been driven by various well-designed policies and laws. The National Education Act B.E. 2542 (1999, 2002) and amendments, which have been regarded as the master plan for Thailand's education reform for two decades, stipulated that vocational education shall be provided in educational institutes belonging to the state or private sector, enterprises, or those organized through cooperation between educational institutes and enterprises in accordance with the Vocational Education Act and relevant laws.

This act enabled the innovative provision of vocational education in the forms of adopted and industrial-led programs. In the “adopted programs,” enterprises provide schools with financial contributions, equipment, staff development, experts, and other resources based on agreements between participating partners. An example of a highly successful adopted program is innovative strategies of the adopted programs including work-based learning, a competency-based curriculum, and better job opportunities for students. Success depends on the active relationship between partners with mutual benefits, opportunities of teachers for training in the workplace, and flexible bureaucratic school systems (Siripan et al. 2012).

Unlike the adopted programs, the industrial-led programs are organized independently by enterprises. For example, the Panyapiwat Techno Business School of the CP All Company (part of the CP corporate conglomerate) provides a 3-year vocational secondary education preparing workers for 7-Eleven convenience stores throughout Thailand. Although this industrial-led program is tailored to the demands of the CP All Company, the curriculum structure is based on the Ministry of Education's core curriculum. As a result, Panyapiwat Techno Business School's students are eligible to receive a certificate in vocational education the same as those from other government schools. A key feature of this industrial-led program is work-based learning in the form of “dual vocational education.” Students spend 3 months in school and another 3 months in 7-Eleven convenience stores during the 3-year program. In other words, students are considered as employees from the very

first day of enrollment in the school. They earn income during their practical experiences at the workplace. An important innovation of this program lies in its distant learning mode for up to 10,000 students who enroll at 20 centers and 70 network schools. All students receive the same quality standard of theory subjects, and they are provided practical training by well-trained and experienced staff at the workplace. This program is highly successful because of the active administrative team and teachers who always seek for continuous improvement of the program. It equips students with attractive practical experiences and requires attributes for working in the retail sector (Siripan et al. 2012). However, except for financially challenged students, working during study is quite uncommon for Thai youth. The Panyapiwat Techno Business School is organizing more campaigns to make parents and the public realize the benefit of work-based learning (Fry 2015).

Such campaigns and initiatives are important. Otherwise Thai vocational education will not be in compliance with the Vocational Education Act B.E. 2551 (2008). The Act stipulates that vocational education shall be provided in three forms, namely, formal vocational education, nonformal vocational education, and dual vocational education, with special preference for the last type. The Act envisions competency-based curricula emphasizing entrepreneurial skills and work ethics. Another principle laid out in the Act in response to the 11th National Economic and Social Development Plan B.E. 2555–2559 (2012–2016) is establishing a system of vocational qualifications in order to create a better bridge between education and work, thereby enabling individuals to enter the world of work and come back to engage in education and training at any time, a key element of effective human resource development. As a result, the Act specifies the target group of vocational education and training as covering the country's school-age population as well as members of the existing labor force who wish to upgrade their knowledge and skills. The Act complements perfectly with the Skill Development Promotion Act B.E. 2545 (2002) and the Regulations on Criteria and Procedure for Assurance of Thai Labor Standards B.E. 2546 (2003) developed earlier by the Ministry of Labor. The Skill Development Promotion Act B.E. 2545 (2002) promotes cooperation between private establishments and educational institutes. It offers certain privileges and tax incentives for private establishments that provide occupational skills training services to their employees. The Skill Development Fund has been established to facilitate skill development promotion activities.

Later the Thailand Professional Qualification Institute (TPQI) (public organization) was founded in 2011 in order to promote the development of professional qualification system in Thailand. From our perspective, this is a remarkable milestone in Thai vocational education history as it will facilitate linkages among formal, non-formal, and informal education. Workers certified by TPQI shall be paid based on their actual skills and competences rather than their educational degrees obtained from formal schooling. Furthermore, the qualification system demands development of competency-based vocational education curricula and occupational standards that will promote better relevance of education to the labor market. Since its establishment, TPQI has collaborated with 13 organizations both in Thailand and abroad, including the Office of the Vocational Education Commission of the Ministry of

Education and the Department of Skill Development of the Ministry of Labor, in order to develop a professional qualifications framework in the country. It was expected that the occupational standards and professional qualifications certifying system would be finalized by the fiscal year 2014. As of 2014, occupational standards have been developed for 14 industries, including petroleum and petrochemicals, construction, information and communication technology, Thai cuisine, logistics, spa and beauty care, high-speed trains and railways, dressmaking, airline business, flower arrangement business, automotive services, photography business, printing business, and tool and die engineering. In the 2013 fiscal year, TPQI concluded a memorandum of understanding with five educational institutions that will be authorized to conduct occupational standards test for workers in three industries (TPQI 2014).

The aforementioned laws were additionally transformed to other sound policies included in the National Education Plan (Revised Version) B.E. 2552–2559 (2009–2016) and the Vocational Education Development Strategic Plan B.E. 2552–2561 (2009–2018). Both plans are concentrated on competency-based pay, campaigns to improve the public image of vocational education, business incubation for student entrepreneurs, greater emphasis on dual vocational education and internships, and the development of a vocational education quality assurance system. The Vocational Education Development Strategic Plan B.E. 2552–2561 (2009–2018) specifies that the ratio of students in vocational upper secondary education and general upper secondary education should be 60:40 and the percentage of vocational education students engaging in dual vocational education should be at least 30%.

All in all, the proposal for second decade of education reform (2009–2018) highlights three policy pillars, which are (1) enhancement of educational quality and standards, (2) expanding lifelong learning opportunities for all Thai citizens, and (3) encouraging participation of all segment of society in educational provision and management. With reference to vocational education, national standardized tests upon completion of vocational education programs are required in order to ensure the quality of vocational school graduates. This Reform Policy Paper reaffirmed the needs for TVQ, work-based learning, dual vocational education, and entrepreneurial skills. A credit banking system has been proposed in order to support transition between school and work. In addition, the reform postulates the role of vocational education in the development of provincial clusters. Vocational schools and colleges that are qualified to offer the bachelor's degree in vocational education fields shall be promoted to be vocational education institutes (*sata-banachiwasukesa*) (สถาบันอาชีวศึกษา) to provide complete linkage between vocational education at the basic level (certificate in vocational education or vocational certificate), intermediate level (diploma in vocational education or high vocational certificate), and advanced level (bachelor's degree). This reform includes ambitious targets to have 60% of upper secondary education students in the vocational track. Vocational education graduates must meet requirements of TVQ and international standards. Above all, employers or users of vocational education graduates should be satisfied with the quality of graduates. Vocational education graduates must be able to find jobs within 1 year upon graduation or must be able to establish their own businesses (OEC 2009).

7.2.3 Significance of Vocational Education for the Thai Labor Market and Economy

Various policy papers and legal acts described in the earlier section have repeatedly mentioned the magic ratio “60:40” because it is mandatory for Thailand now to increase the number of students in its vocational education track. Similar to other emerging Asian countries, Thailand cannot bypass manufacturing on its path to prosperity, and this process requires workers with quality vocational and technical skills. The Asian Development Bank (ADB) recommended that middle-income economies heavily dependent on labor-intensive sectors or currently bypassing industrialization should not neglect upgrading their industrial base. Manufacturing contributes to a high productivity service sector, technological innovation, and modernizing agriculture. It is an essential part of growth formula if Asian countries want to prosper and escape the middle-income trap. World history has demonstrated that no economy has reached high income status without reaching at least 18% share of manufacturing in output and employment for a sustained period. To do so, emerging Asian countries need to improve their educational systems (Singapore: Asia cannot bypass manufacturing 2013).

For decades, Thailand’s industrial and manufacturing sector development has been spurred by international direct investment. The Plaza Accord of 1985 resulted in an appreciation of the Japanese yen. Since then, many Japanese corporations decided to move their manufacturing base to Thailand to enjoy cheaper labor and decent industrial infrastructure developed, for example, through the Eastern Seaboard Development Plan (1981–1994). However, employment in the private sector in 1991–1993 was still dominated by labor-intensive and natural resource-intensive industries, e.g., textiles and garments, construction, and furniture. Employment in technology-based industries, e.g., electric appliances, mechanical appliances, and automobile and automotive parts had been underrepresented until the Asian economic crisis of 1997. This crisis had turned out to be a great opportunity for Thailand to improve export industries due to the depreciation of Thai baht and relatively cheap labor. As a result, the Thai industrial sector had rapidly recovered along with greater expansion of the service sector in hotels, restaurants, and tourism (TDRI 2012a) within 2016 the lowest unemployment rate, 0.9%, among major economies (Economic and Financial Indicators 2017). Economic growth for 2017 is projected to be in the 3–4% range (Suchat 2016).

During 2001–2003, positive changes were noted in the Thai industrial sector. Technology-based industries had increasingly played roles in employment, especially among workers receiving education beyond the diploma levels. Thailand’s economic recovery resulted in an appreciation of the Thai baht and higher wages for workers. International entrepreneurs needed to adjust their manufacturing strategies by replacing low-skilled labor with more advanced technologies and machines. A remarkable expansion of technology-based industries and increased employment in the financial sector was seen during 2004–2006, leading to increasing demand for both vocational education and higher education graduates. Although the worldwide

economic recession starting in 2008 affected Thailand's exports, skilled workers had been less affected by this crisis than unskilled workers because entrepreneurs had decided to keep competent rather than unskilled workers. Service sectors such as commerce, hotels, and restaurants had absorbed laid-off workers from industrial sectors, resulting in a decreased share of labor in the industrial sector and an increased share of labor in the service sector (TDRI 2012a). As a result, the proportion of employed persons in the industrial sector tended to be constant during 2001–2010, but persons employed in the service sector continued to rise. At the end of the last decade, the percentage of persons employed in the agricultural and service sectors in 2010 was roughly equal with 40.7% in the agricultural sector and 40.1% in the service sector (Yongyuth et al. 2012).

The *World Factbook* (United States 2017) reported Thailand's GDP composition by sector of origin, 8.9% agriculture, 36.8% industry, and 52.7% services. The percentage of the labor force in agriculture was 8.9%, in industry 35.9%, and in services 55.3%. Although Thailand's economic growth during the last two decades has been driven by the expansion of employment in the industrial sector and capital investments, productivity gains have been unsatisfactory and less than one-tenth of the growth resulted from human resource improvements (World Bank 2012). The education reform of 1999 (ONEC 1999) initiated a 9-year compulsory education and 12-year free basic education, and thus, the educational attainment level of Thai laborers has dramatically increased. Unfortunately, skill shortages, mismatches between skills and needs, and skill gaps are present, reflecting poor linkages between education and the labor market both in terms of quantity and quality. This problem has persisted for several decades (Varaporn and Fry 1980). We are not arguing here that vocational education school graduates are more important to the Thai economy than low-skilled workers or university graduates. However, we are noting the importance of increasing the number of vocational school graduates especially at the upper secondary education level who are ready and willing to find jobs in the labor market because of "excess demand" for them.

In the first quarter (January–March) of 2015, the number of employed persons in the nonagricultural sector increased from 25.8 million to 26.1 million, while those in the agricultural sector decreased from 12.0 million to 11.5 million. The increment of employed persons in the nonagricultural sector was found in various industries, such as manufacturing, hotels and restaurants, and construction. The number of employed persons with an upper secondary education level and higher levels increased by 0.2 million compared to the same period in 2014, while workers with no education and with less than elementary education decreased by 0.4 million, elementary level decreased by 0.3 million, and the lower secondary level decreased by 0.1 million. However, looking at the total labor force or the population 15 years and over (55,090,300), the aggregated amount of the labor force with no education, less than elementary education, and lower secondary education was together 36,976,400, accounting for 67.1% of the total labor force. In other words, only 32.9% of the Thai labor force had received education beyond the compulsory education level. The share of the labor force with vocational upper secondary education was only 3.4% (1,867,300 individuals). The labor force with a technical higher

education degree was 2,305,100 which accounted for 4.2% of the total labor force. To complicate matters further, the higher the level of educational attainment, the higher the numbers of the unemployed. Unemployment was prevalent among the teenager group (15–24 years old) with an unemployment rate of 4.3%, while the unemployment rate among the adult group (25 years and over) was only 0.5% (National Statistics Office 2015). Needless to say, although the majority of the Thai labor force obtained no more than 9 years of compulsory education, a higher level of education does not necessarily contribute to higher employability.

Having said all this, we carefully use the term “oversupply” of higher education graduates here. We agree with what Coombs (1967) noted many decades ago that educational planning is more sociological, psychological, political, and pedagogical in character than it is economically, although we lean toward the market requirement approach to educational planning. Taking Coombs’ perspective into account, it seems ridiculous to view Thailand as being “overeducated” when large numbers of its people are still functionally illiterate and poor. If education inspires new aspirations and initiatives in people, it may have consequences that for better or worse reach far beyond the statistics of unemployment. “Over-education” is a loaded term that ignores the wider functions of education outside individuals’ working lives or as a source of their well-being in itself (Andrews et al. 2014; Noddings 2003; OECD 1999).

Nevertheless, the Thai labor market has not been able to provide enough jobs for the large influx of highly educated workers, while it has experienced a shortage of low-skilled and mid-skilled human resources. Thailand might be still trapped in a low-skilled, low-technology, and low value-added economy if the country does not upgrade its industrial base and use more effectively the available pool of highly educated workers. Although Thai laborers have been slowly shifting toward occupations demanding higher skills, demand for low-skilled workers obtaining lower secondary education and lower levels of schooling may not have actually decreased. Currently tourism is one of Thailand’s fastest growing industries, and the skill requirements for many working in this rapidly growing industry are minimal (e.g., those cleaning hotel rooms, bellboys/girls, etc.)

The decline in the share of low-skilled labor in the Thai labor market might be just a result of their limited supply due to better access to continuing formal schooling. In reality Thailand still needs to import large numbers of low-skilled laborers from neighboring countries or to employ general upper secondary school graduates to do low-skilled jobs. As of 2009–2010, only 19.2% of the Thai labor market was able to absorb skilled laborers with vocational upper secondary education, diplomas in vocational education, or bachelor’s degree and higher levels of education, although this figure increased significantly from only 8.8% earlier in 1991–1993 (TDRI 2012a).

During the past 20 years (1991–2010), the growth rate of laborers with upper secondary education in the academic stream, bachelor’s degree, and master’s degree and higher was much faster than for those laborers with vocational upper secondary education. The highest growth rate was found at the master’s degree and higher level with an average growth rate of 10.5%. The average growth rate of laborers with vocational upper secondary education was only 2.5%, while the average growth

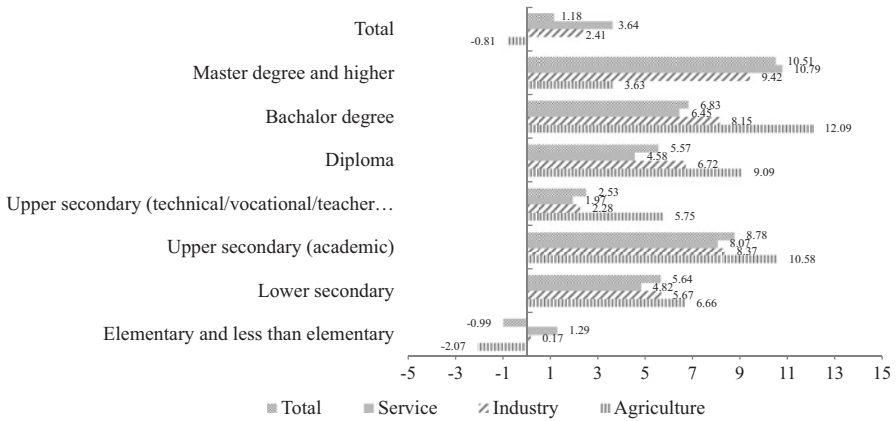


Fig. 7.1 Average labor growth rate (1991–2010), by educational attainment and sectors. Calculated growth rate by Thailand Development Research Institute based on the Labor Force Survey (third quarter, 1991–2010) (Adapted from “Innovative secondary education for skills enhancement: Skills for employability: Southeast Asia,” by Yongyuth et al. (2012), p. 5. Reprinted with permission from the Results for Development Institute)

rate of laborers with general upper secondary education was 8.8%. Although the overall growth rate of laborers in the agricultural sector contracted, among vocational upper secondary education laborers, the growth rate was surprisingly much higher in the agricultural sector (5.8%) than in the industrial (2.9%) and service sectors (2.0%). A similar trend was also noticed at the bachelor’s degree level, diploma level, upper secondary education in the academic track, and lower secondary education level. Such a pattern of labor growth rate created a concern that Thailand has not been having strong and sustainable value-added industrial and service sectors despite increasing levels of educational attainment of its population (Yongyuth et al. 2012) (see Fig. 7.1).

Our study of the demand for manpower production and development of the country (action plan at the provincial cluster level), which TDRi conducted in collaboration with the OEC in 2009–2010, showed that by 2020 Thailand will have a greater need for a work force with all levels of education, but demand for those at the diploma level and master’s degree and higher will be stable. Estimates, based on labor force data of 2009, are that by 2020 Thailand will have encountered “excess demand” for human resources with lower secondary education, but upper secondary education graduates will be in “excess supply.” If the supply of labor is defined as those new entrants to the labor market, both unemployed persons seeking and not seeking jobs, there will be an “excess supply” of laborers with vocational upper secondary greater than the excess supply of those with general upper secondary education. However, projections under an alternative assumption, which excludes unemployed persons not seeking jobs, the supply of upper secondary education graduates both in the academic and vocational tracks will be much less than the demand. In other words, the “excess demand” for mid-skilled human resources will

be prevalent by 2020 because many upper secondary education graduates, especially from the academic stream, will be unemployed persons not seeking jobs. There will be an “excess demand” for those with vocational upper secondary education backgrounds in almost all provincial clusters and the Bangkok Metropolis, especially the Eastern Seaboard provincial cluster, Upper Central provincial cluster 1, and the Lower Central provincial cluster 1. An “excess supply” of this group of laborers will be seen only in two provincial clusters: the Northeastern provincial cluster 2 and the lower Northern provincial cluster 1. As for laborers with a diploma in vocational education, none of the provincial clusters will demonstrate “excess demand.” In other words, Thailand has been currently producing too many vocational education graduates at the diploma level. Similar trends are noticed among workers with a bachelor’s degree. An “excess supply” of college graduates will be found in all provincial clusters and Bangkok Metropolis, except the Andaman Sea Southern provincial cluster (TDRI 2011).

According to the most recent Labor Demand of Establishment Survey conducted in 2013 by the National Statistics Office among 189,182 establishments throughout the Kingdom, 59.4% of vacant positions had not yet been filled after more than 6 months. The most demand was for skilled workers such as embroidery workers, cloth makers, air conditioner technicians, car and vehicle technicians, and welders. The most prevalent shortage of laborers was seen among workers with secondary education and lower levels, followed by workers with any levels of education. The shortage of laborers with a certificate in vocational education accounted for 17.3% of the total labor shortage. The corresponding figure for a diploma in vocational education or its equivalent was much less at only 8.7%. As for the bachelor’s degree and higher levels, the shortage accounted for 15.2%. However, when comparing the numbers of unemployed persons to the numbers of workers in demand, the number of unemployed persons with certificates in vocational education (39,900) was much lower than the demand for them (57,200), while unemployed persons at the diploma level (43,600) and bachelor’s degree and higher levels (79,500) were almost double the demand for them. Even among the low-skilled workers with secondary education and lower levels, 119,800 were unemployed, while the demand for them was 99,700 (National Statistics Office 2014).

The “excess demand” for those workers with a certificate in vocational education has led the government to try to increase the ratio of high school graduates in the vocational education track. Nevertheless, Thailand has faced a serious shortage of workers with a certificate in vocational education at the same time that the country in general has had unemployment problems (but much less than most countries, Economic and Financial Indicators 2017). The relevance of training and quality of graduates should be also taken into account. A comparison of unemployment rate by educational attainment between 1987 and 2010 showed that the unemployment rate for vocational upper secondary education graduates was almost double compared to their academic track counterparts. In this regard, public hearings among educational experts and employers conducted by TDRI in recent years revealed that their unemployment might result from their poor quality. Employers are still wanting workers with technical skills, but the quality of vocational school leavers is not

as high as expected, and many of those with certificates in vocational education workers are non-science and technology (S and T) graduates. Another reason might be that their skills are too specialized, while the general upper secondary education graduates acquired general skills that contributed to their greater flexibility and better adaptation to the labor market (Yongyuth et al. 2012).

In this regard, evidence demonstrating the mediocre quality of vocational education students and graduates is ambiguous. In 2012, our Labor Development Division at TDRI conducted research on indicators and benchmarks of the quality of vocational education and secondary education graduates during the second decade of education reform, which was commissioned by the OEC. A secondary analysis of the second-round external evaluation of vocational schools in 2006–2010 by the Office for National Education Standards and Quality Assessment (ONESQA) reported “good” and “excellent” overall quality of vocational education graduates, especially those from public vocational schools. Unfortunately, the Vocational National Educational Test (V-NET) scores of those receiving third year certificates in vocational education in 2011 were quite low. Mean scores were lower than 50% in all subjects, which included (1) generic and learning competences, (2) fundamental vocational competences, and (3) specific vocational competences. Fortunately despite such low test scores in terms of outcomes, the majority of vocational education graduates both at the certificate and diploma levels were able to get jobs, although some of them needed to work in fields unrelated to their studies. Such a mismatch was common among graduates obtaining certificates in vocational education in fisheries. As for those graduates with a diploma in vocational education, mismatches were found in the fishery and textile industries (TDRI 2012b).

Then, we collected additional primary data through a quantitative survey and semi-structured interviews with 315 employers in five provinces, Rayong, Chonburi, Nonthaburi, Samut Sakhon, and Samut Prakan (provinces with major industrial development), in order to investigate their satisfaction with the quality of vocational education graduates who are less than 22 years old. The majority of respondents were human resource managers (42%) in the manufacturing sector. According to the interviews, newest vocational education graduates are not able to perform required tasks due to their lack of skills and skill mismatches. As a result, employers need to provide on-the-job training for these new graduates lasting at least 1–3 months. In terms of “knowledge,” the quantitative survey showed that employers are most satisfied with graduates’ knowledge of principles and theories in their respective fields of study. The average satisfaction score for this item on a five-point scale is 3.89. Their professional knowledge in technology and innovation are also highly satisfactory. However, employers are unsatisfied with the English and other language knowledge of graduates (2.89). In the “skills” dimension, the highest satisfaction level was found with graduates’ ability to use tools, machines, and equipment for their respective occupations (3.84), followed by the ability to apply new knowledge in their jobs (3.73). Their other language skills (such as English) for day-to-day work are least satisfactory (3.00). Finally, in terms of required “attributes,” employers are most impressed by vocational education graduates’ interpersonal skills and ability to work in teams (3.97), followed by their compliance with regulations and

their work discipline (3.84). The least satisfactory attribute is graduates' creative communication skills (3.52) (TDRI 2012b).

Overall, vocational education graduates, especially at the certificate level, are important mid-skilled human resources that are in great demand, if Thailand wants to upgrade its manufacturing sector and create more value-added agriculture and services. Regrettably, Thailand has been faced with both “demand and supply” constraints in increasing the size of this group of laborers at the same time that the country has been encountering an “excess supply” of higher education graduates both at the diploma and the degree levels. In addition, a skill mismatch was found among vocational education graduates in some fields of study such as in the fishery and textile industries. The quality of vocational education graduates is mixed, showing both the satisfactory and unsatisfactory dimensions. Therefore, key challenges facing Thai vocational education are not only quantity issues but also the need to improve its relevance and quality.

7.3 Strengths and Limitations of Thai Vocational Education

Our analysis of the strengths and limitations of Thai vocational education according to the SWOT and PEST analysis framework in this section is based on our insights gained through various research projects on human resource production and development that TDRI has conducted for various Thai government agencies, e.g., the Ministry of Education and the Ministry of Industry, and international organizations, e.g., the Overseas Vocational Training Association (OVTA) in Japan and the Results for Development Institute in the United States. These projects offered us valuable opportunities to discuss with various policy makers and experts in vocational education such as Dr. Krissanapong Kirtikara who was recently Deputy Minister of Education and Dr. Siripan Choomnoom who is a former Deputy Secretary-General of the Office of Vocational Education Commission. Hearing the important voices of our research participants in vocational schools and in the private sector also contributed to our tacit knowledge and understanding of Thai vocational education. From our perspective, Thai vocational education demonstrated the following strengths and limitations:

7.3.1 Strengths

Internal strong points of Thai vocational education or its “strengths” according to the SWOT analysis framework are:

- The number of vocational education students at all levels had reached 725,490 persons in 2011 (http://www.moe.go.th/data_stat/) and dropped slightly to 654,083 persons in 2014 (<http://bms.voc.go.th/>) and then increased to 674,113 in

2015. The number has started to increase from the previous year, although at a slow pace.

- The Vocational Education Act B.E. 2551 (2008) and other subsequent laws have facilitated the emergence of a vocational education reform movement.
- By granting authority for vocational education institutions to provide training at the bachelor's degree level, it is expected that the strict separation of vocational and higher education will break down and will finally motivate more students to choose the vocational education track.
- The Ministry of Education has a clear goal to increase the percentage of students in the vocational upper secondary education track. Although the magic ratio of 60:40 seems to be too ambitious, before the end of the second decade of education reform (2009–2018) (OEC 2009), the government has tried its best to reach the ratio of 50:50 which is that existing in a newly industrialized economy such as Taiwan.
- The Office of the Vocational Education Commission is now urgently producing high-quality vocational education school teachers to replace thousands of teachers retiring in the next 10 years.
- The Office of the Vocational Education Commission is now collaborating with the private sector, the Ministry of Labor, and the Thailand Professional Qualification Institute in order to develop competency standards for various occupations which will finally contribute to the implementation of a competency-based vocational education curriculum.
- The Office of the Vocational Education Commission created a joint committee of public-private partnership for vocational human resource production in 25 occupational clusters in order to lead the development direction of vocational education and facilitate demand-driven vocational education.
- The Ministry of Education has attempted to raise the quality of vocational education through dual vocational education and work-integrated learning continuously and concretely.
- Five science-based technology vocational colleges were established with the view to enhance the quality of vocational education in science and technology. The Technician and Technologist Scholarships (2TS) were added to the One District One Scholarship (ODOS) project in order to prepare government officials in technical positions and teachers in vocational education colleges.

External factors supporting the advancement of Thai vocational education according to the SWOT analysis framework can be seen through the lens of the PEST framework as follows:

Political Factors

- Both the government and private sector have a consensus agreement regarding the importance of vocational education for Thai society. This is a really new phenomenon in Thai vocational education history.
- The current government headed by the National Council for Peace and Order (NCPO) views vocational education as an important part of the national agenda and has introduced the slogan, “vocational education for nation building.”

Economic Factors

- The Federation of Thai Industries estimated that the demand for vocational education workers has been approximately 89,642 persons between 2010 and 2015 or it has accounted for 36% of total demand for labor in the Thai labor market. It has also predicted that this demand will continue for a long period into the future.
- Various companies are now keen to engage in vocational education provision both directly and indirectly due to their demand for high-quality skilled technicians and incentives provided by the government.

Sociocultural Factors

- During the last 2–3 years, Thailand has made serious attempts to increase the proportion of students in vocational education. The Office of the Vocational Education Commission has initiated various campaigns to increase the popularity and improve the public image of vocational education in Thai society by introducing slogans such as “vocational education is a good choice, free tuition, and earn income”; “jobs are available for you after graduation”; and “study agricultural vocational education with free accommodations and free meals.” In addition, “Fix It Centers” have been created to provide vocational services to communities and improve the public image of vocational education and vocational education students.

Technological Factors

- A knowledge-based economy requires vocational education technicians. A country with a knowledge-based economy is where “the production, diffusion and use of technology and information are key to economic activity and sustainable growth” (OECD 1999, p. 7).

7.3.2 Limitations

Internal limitations or the “weaknesses” of Thai vocational education according to the SWOT analysis framework include:

- We agree with Hallinger and Lee (2011) that education reform in Thailand is not a “broken promise” but it is more accurately framed within the metaphor of the “impossible dream.” To us, the magic ratio of 60:40 is also another example of the impossible dream. In 2015, the ratio of vocational upper secondary education to general upper secondary education students was 31:69 (MOE 2016). To reach the magic ratio of 60:40 by 2018, it means that the proportion of vocational education school students needs to double.
- The Thais often witness violence erupting between students in different vocational education schools. As a result, parents are worried about the safety of their children in vocational education schools, and many parents are reluctant to send their children to these schools.

- The policy to provide vocational education in general secondary education schools has not yet been fully implemented due to resistance from stakeholders and ambiguous policy direction.
- Vocational education schools, especially the private ones, are often faced with insufficient and poor-quality infrastructure, laboratories, and learning materials. This in turn may lead to poor-quality vocational education school graduates whom employers find unacceptable.
- School-industry collaborations are still limited resulting in limited opportunities for schools to access state-of-the-art technologies that are necessary for instruction in vocational schools.

External factors affecting development of vocational education in Thailand or its “threats” according to the SWOT analysis can be viewed through the lens of the PEST framework as follows:

Political Factors

- In the past, neither the Thai government nor the Ministry of Education has had clear directions and visions in human resource production and development both at the macro- and the microlevel that responded well to the national economic and social development plans. Both public and private vocational education schools and colleges produced vocational education graduates under ambiguous long-term visions and directions.
- The government has not yet revised relevant laws and regulations in order to facilitate flexible and efficient instruction in vocational schools.
- The Thai government has not yet provided sufficient funding to support its strategic vision to reach the magic ratio 60:40.
- The per student subsidy by the government led to a so-called “war” for students between general secondary education schools and vocational education schools in attracting as many students as possible.

Economic Factors

- Although the private sector is now more engaged in vocational education provision, they do not take part actively in establishing clear directions for the vocational education labor market in terms of wages and remuneration.
- Wages of laborers with a certificate in vocational education are higher than their general upper secondary education counterparts. However, if students continue their study until a bachelor’s degree before entering the labor market, they will get much higher wages. As a result, the majority of students prefer to study general education as a direct pathway to a university.
- Although qualified and approved vocational education institutes are allowed to provide vocational education at the bachelor’s degree level, the Thai labor market needs vocational education school leavers with certificates in vocational education rather than diplomas in vocational education or bachelor’s degrees due to the limited financial capacity of establishments to hire higher-wage workers.
- Although members of the private sector are now increasingly participating in vocational education provision, such practice is not yet adequately widespread.

- The possibility to enlarge the scale of dual vocational education is limited, especially in provincial areas. Companies that have the capacity to accept vocational school students are centered primarily in Bangkok and larger cities.

Sociocultural Factors

- The educational and career counseling services in lower secondary education schools are not effective. Having known little about vocational education and future careers, students feel unconfident to pursue the vocational education track at the upper secondary education level.
- It is difficult to change values or decrease the demand for university degrees in Thai society as it is related to strong cultural roots related to protecting one's face and education is seen as a way to climb up the social ladder in Thai society (Dore 1976; Fry 1981). Many students and parents perceive that vocational education is for manual workers, low academic achievers, and economically challenged students.

Technological Factors

- Thailand cannot respond adequately to the demands of globalization and a knowledge-based economy due to outdated and irrelevant human resource development programs. A key reason is the absence of close cooperation between the trainers and users of laborers.

7.4 A Blueprint for the Future of Thai Vocational Education

Thailand can no longer remain complacent. The country needs to boost urgently economic expansion and maintain its competitiveness as an attractive place for international direct investment. To do so, Thailand needs to upgrade the quality of its workforce and establish itself as a skilled and competency-based country. One mandatory requirement in this process is to develop clear visions for vocational education. Inconsistent policies as found before in the establishment of the four specialized vocational institutes in 2011 should not happen again (*Khaosod* 2011).

The most urgent need is to improve the “quality” of vocational education students both at the certificate and the diploma level by, for example, revising relevant laws and regulations. Four hundred twenty-one private vocational education institutions, which are currently under the jurisdiction of the Office of the Private Education Commission, should be moved to be under the Office of the Vocational Education Commission similar to public vocational schools in order to promote unity in policy and implementation. In the past, private vocational schools and colleges have usually faced a shortage of instructional materials leading to the unsatisfactory quality of their graduates. More resources and budgets should be allocated to vocational education sufficiently and constantly, and such resources and budgets should be utilized transparently. No corruption in vocational education should be tolerated (*Thaipost* 2011).

In addition, vocational education should become more internationalized by promoting teacher and student exchanges with vocational education institutes abroad in countries known for their quality vocational training such as Germany, Japan, and Singapore. International experts should be invited to teach and provide instructional guidance in Thai vocational education schools and colleges. High-quality teachers should be prepared to replace the soon-to-be-retired teachers.

In terms of “quantity” development, the ratio between vocational education students and general education students at the upper secondary education level should reach at least 50:50 within 5 years, and the increment should occur in the increasingly important science and technology fields of study. More science-based technology vocational colleges should be established in order to solve the shortage of semi-skilled workers in the science and technology fields (see Chap. 17). More scholarships should be provided to underprivileged students and to support those who demonstrate a willingness to study in fields that are in urgent need.

“Relevance” to the labor market cannot be achieved unless the private industrial and manufacturing sector plays more active roles in vocational education provision and labor market reform (Jomphong 2009). Thailand Vocational Qualifications (TVQ) should be put into real practice and should cover all occupations, especially those that are in great demand by the labor market (Jomphong 2010, 2014). Students should have more opportunities to do internships or to engage in dual vocational education. Furthermore, through interviews with employers and representatives of the industrial sectors for our research projects related to vocational education, users of vocational education school graduates emphasized moral attributes of graduates such as perseverance, persistence, self-discipline, work ethic, and self-esteem, as well as their knowledge and skills. Vocational education students should be equipped with sufficient other language skills such as English, creative thinking skills, and analytical thinking skills in order to increase their employability in the new AEC era.

Finally, substantial resistance to the provision of vocational education in general secondary education schools has been noticed due to the complicated management of vocational education and the availability of abundant vocational schools (*Thai Rath* 2011). However, we insist that this policy of integrating more vocational training into general education should be seriously implemented. The education reform of 1978 had once emphasized a self-contained or comprehensive secondary education. At that time, Thailand could not provide enough higher education opportunities for all qualified candidates. The university entrance examination was highly competitive, and those who could not gain university places had not been equipped with sufficient vocational knowledge and skills to enter the labor market as their training had been oriented toward academic skills. As a result, secondary education should have provided students with vocational skills as well as academic skills and should not have been considered merely as a path to university (World Bank 1989).

In the last decade, this policy had been modified and implemented again but with some additional rationales and practices. The Thai government realizes that there are many students in the rural areas who need vocational education, but they cannot afford to study in this field because most of the vocational education institutions are

mainly located in the cities. Therefore, the Office of Basic Education Commission and the Office of Vocational Education Commission signed an agreement to support the development of vocational education in rural secondary schools. Cooperation can be in various forms; namely, (1) students enroll in vocational schools, but teaching and learning processes are carried out at secondary schools with collaboration between vocational and general secondary education schools; (2) vocational schools provide consultants, guidelines, and any other assistance to general secondary schools to offer vocational education programs in general secondary education schools with their own resources; and (3) secondary schools that have qualified staff and equipment can provide vocational secondary education by themselves independently (Siripan et al. 2012). This represents a sound policy considering that many parents are reluctant to send their children to vocational education schools directly due to their worries about their children's safety. Since 2012 "secondary career education" has been promoted by the Office of Basic Education Commission as part of secondary education. The curriculum of secondary career education B.E. 2012 consists of 45% core curriculum, (2) 45% competency-based curriculum, and (3) 10% learner development activities (*Daily News* 2011).

To conclude, there is still a long way to go if we want to see well-accepted high-quality vocational education that can serve as an engine of growth and prosperity for Thailand. Fortunately, various radical and positive changes in Thai vocational education have occurred at a much faster rate than changes in the values and attitudes of Thai people toward vocational education.

At a meeting (January 2016) on the future of Thai education held by the Quality Learning Foundation, Thailand Research Fund, and education reform associations from 14 provinces, the Deputy Director General of Research at Dhurakij Pundit University (DPU), Dr. Kiatanan Ruankaew, shared an alarming World Bank report indicating that Thailand faced the most serious shortage of skilled labor among ASEAN countries (*The Nation* 2016). The report claimed that 83.5% of the Thai workforce were unskilled and that only 38.8% were in suitable positions. There are two issues, however, with this report. One is that the research appears dated and second how "unskilled" is being defined. The latest second quarter labor survey (2015) indicates that 47% of the labor force had only primary education or lower lending support to the claims made in the WB report. These data also support Dr. Krissanapong's (former Deputy Minister of Education and former president of KMIT-Thonburi) deep concern that Thailand is not investing enough resources to improve human resource development and enhance the skills of its *existing workforce*.

Actually as with Thai education in general and in reality, this is a "tale of two cities." Clearly a significant segment of the labor force is unskilled, while another segment has good or even outstanding skills. Professor Gerald W. Fry in November 2011 interviewed the CEO in charge of the Mercedes-Benz factory in Thailand, Dr. Alexander Paufler, and he claimed that the Thai workers at his factory in Thailand were second only to those in Germany in terms of their skills and quality. His views seem consistent with Rayong having become the "Detroit of Asia." Rayong now has one of the highest incomes per capita of any province in the country reflective of the

skills and productivity of workers there (Jomphong 2010). Thailand's automotive industry is now the world's 12th largest, just ahead of the United Kingdom (Oxford Business Group 2016). But Rayong is obviously not Isan (the Northeast) or other rural parts of Thailand. Also institutions such as the Thai-Nichi Institute of Technology (NIT), German-supported vocational education (e.g., the German-Thai Dual Excellence Education (GTDEE) program), and Don Bosco schools all have good reputations for producing highly skilled workers and technicians.

In looking at contemporary issues such as vocational-technical education, we often are myopic and too ahistorical. Over 200 years ago, skilled Siamese artisans built the Temple of the Emerald Buddha and the Grand Palace (Subhadradis 1982). With no modern technology at all, these craftsmen produced a magnificent person-made wonder of the world. This historical accomplishment suggests the great potential of the Thais as skilled workers.

To conclude, if the data in the WB report mentioned above are indeed found to be accurate, then Thailand faces a serious crisis in meeting the challenges of the AEC era which began at the end of 2015 and escaping the "middle-income" trap. Collective efforts from all parts of Thai society must then be devoted to the development of *quality vocational education*, if the slogan "vocational education for nation building" is to become a living reality.

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Chapter 8

Nonformal and Informal Education in Thailand



Sumalee Sungsri

Abstract In Thailand, before any kind of education was formally introduced, education or learning existed mainly in the form of informal learning. In addition, some forms of informally organized nonformal education also existed. In 1940, the Division of Adult Education was established within the Ministry of Education to look after nonformal education which was called at that time adult education. The main purpose of the latter in that period was to provide adults with literacy skills coupled with knowledge and understanding about citizen roles in a democratic society. Later on the division was upgraded to become the Department of Non-Formal Education, and the scope of responsibilities was extended to serve all after compulsory school-age people, including adults. When the National Education Act, 1999, which focused on lifelong education, was promulgated, all types of education were recognized as main components of lifelong education: formal education, nonformal education, and informal education. This chapter provides readers with the details of both nonformal and informal education in Thailand. It begins with the definition and concept of nonformal and informal education and non-formal and informal education as components of lifelong education. Then discussed is the evolution and development of nonformal and informal education, including policy implementation and the identification of best practices of nonformal and informal education. The data sources derive from both the documentary search and field studies. The author has synthesized all related information and data together with her own experience working in the field of nonformal and informal education for over 30 years to compose this chapter in order to provide readers with diverse perspectives on nonformal and informal education in Thailand.

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8.1 Introduction

In the old days when the formal school system was not yet established, the Thai people obtained knowledge and skills for their day-to-day living and occupations from their families and relatives through informal learning. There were some activities which can be regarded as nonformal education available in those days; for example, young men studying the art of fighting from a talented local person or boys learning how to read and write from the monks in the local temples. The first formal school was introduced to train civil service officers in 1871. After that, a school for the general public was established in 1884. That was the beginning of the formal education system.

Nonformal education was formally introduced in the form of “adult education” only much later in 1940. For informal education, it was initially regarded as a part of nonformal education activities. It had not been formally mentioned separately until the National Education Act B.E. 2542 (1999) was promulgated. According to this Act, formal, nonformal, and informal education are all regarded as the key components of lifelong education.

This chapter provides an overview of both nonformal and informal education in Thailand, covering nine major topics: (1) definition and concept of nonformal and informal education in Thailand, (2) nonformal and informal education as components of lifelong education, (3) the evolution and development of nonformal and informal education in Thailand, (4) laws and policies supporting nonformal and informal education in Thailand, (5) the administrative system of nonformal and informal education in Thailand, (6) nonformal and informal education activities available and the related target groups, (7) nonformal and informal education provided by other agencies and organizations, (8) policy implementation and best practices, and (9) assessment of the nonformal education programs of the MOE.

8.2 Definition and Concept of Nonformal and Informal Education in Thailand

Nonformal education in Thailand originates from the term “adult education” as in many other countries. The main objective of adult education, when it was first introduced to the educational system of the country, was to provide literacy skills to Thai adults who could not read and write who had no chance to enter formal schools during their school-age period. The concept was later extended to cover living and occupational skills. The term “adult education” had been used for many years until it was found later that a large number of school-age individuals dropped out of schools before graduation. In addition, a number of those finishing primary education had no opportunities to continue their education in a secondary school or higher level due to several reasons. For instance, they had to work to support their poor families, secondary education was unavailable in their area, or continuing study in

a secondary school or higher institution was too costly. To help these individuals gain another chance for education, adult education was expanded to serve them as well. Since the target groups of adult education were not only adults but also school-age youth, the term “adult education” was changed to “nonformal education.” Although it is now called nonformal education, it still follows the basic principles of adult education.

After reviewing the definitions and concepts of adult education and nonformal education given by a number of prominent educators in the field such as Apps (1992), Axford (1980), Axin (1985), Bock and Papagiannis (1983), Coady (2016), Coombs et al. (1973), Fordham (1993), Jarvis (1987), Knowles (1984), Okano (2016), Rogers (1977), and Simkins (1977), it can be concluded that the definition of nonformal education adopted in Thailand is similar to that used in many other countries. It should be noted that with the current huge influx of refugees into Europe, there is renewed interest in the potential of nonformal education to serve such groups and to empower youth (Masoud 2015).

The definition of nonformal education provided by Thai educators such as Kowit Varapipatana (1980), Kasama Varavan (1989), Sunthorn Sunanchai (2014), Ounta Nopakun (1984), Pathom Nikmanondha (1985, 2000), and Sumalee Sungsi (2014) is as follows:

Nonformal education is educational activity provided for all out-of-school individuals, regardless of age, gender, occupation, educational background, or place of residence. It aims at providing people with knowledge and skills which are necessary for their living and performing their occupations. This type of education is flexible and adjustable to suit each learner’s needs and the context of each community.

According to the above definition, nonformal education is more flexible than the formal school system in various respects. Nonformal education providers can be governmental or non-governmental agencies, or local organizations, and need not be only educational institutions. The curriculum can be adjusted to suit the context and problems of each local area. Teachers can be those with local wisdom, abbots, monks, farmers, or experts in diverse fields. Duration of lessons can be adjusted to suit the needs and schedules of learners. Places for study can be in the rice fields, at the temple, or in a villager’s household. Methods of evaluation are rather focused on the application of knowledge and skills obtained to real-life situations rather than scores on formal achievement tests.

In addition, when the National Education Act of Thailand was promulgated in 1999, the definition of nonformal education was also defined. Nonformal education, as stated in the Act, is:

A type of education which is flexible in objective designing, formats, methods of organizing, period of time for study, and measurement and evaluation method which is the main criteria of finishing from the learning programs. The contents and curriculum have to be suitable and related to needs, situation and problems of learners in each group (ONEC 1999, p. 9).

For informal education, although it has existed, in reality, as long as human beings, it was never formally recognized as one separate type of education. When

nonformal education has been developed increasingly to serve all school-age people up to adults, informal education activities were integrated into nonformal education activities. For the first time in the year 1999, when the National Education Act was promulgated, “informal education” was formally introduced and recognized as one type of education like “formal education” and “nonformal education.”

The definition of informal education introduced in the National Education Act 1999 is:

Informal education is a type of education that people start learning by themselves according to their interests, capabilities, readiness, and opportunities. They can learn from people, experience, community and environment, media and other learning resources. (ONEC 1999, p. 10).

8.2.1 Nonformal and Informal Education As Key Components of Lifelong Education in Thailand

In Thailand, lifelong education or learning has informally existed for a long time in the form of informal learning. In the year 1970, UNESCO broadly promoted the significance of lifelong education and encouraged all countries in every region to develop their education in accord with lifelong education. Thailand was one of the countries which accepted this idea. After that, the word “lifelong education” has been mentioned in some nonformal education activities. Lifelong education first formally appeared in the 1987 National Education Plan (Sunthorn 2000a). It was stated in the plan that “education should be a lifelong education process.” Since then, the word “lifelong education” has become more familiar in the educational system of the country. Lifelong education has been strongly promoted from 1999 onward with the promulgation of the National Education Act 1999. The Act proclaims the lifelong education philosophy as a direction for organizing the whole education system of the country.

After the Act had been approved, a number of policies, plans, and guidelines for providing education to promote lifelong education were developed. Moreover, related government agencies, non-governmental agencies, educational institutions, local organizations, private sector members, and individuals were encouraged to take part in organizing and promoting lifelong education.

According to the Act and related laws and policies, lifelong education in Thailand is defined as a holistic approach to education. It covers all kinds and all forms of education: formal education, nonformal education, and informal education. It integrates the way of life of people and all related factors such as society and environment, religions, cultures, economics, and politics. It is necessary for every period of our lives. It aims at fully developing people’s capacity with sufficient basic knowledge and skills for living, working, and adjusting themselves properly to the changing society and environment at every period and phase of life (Sumalee 2003, 2012).

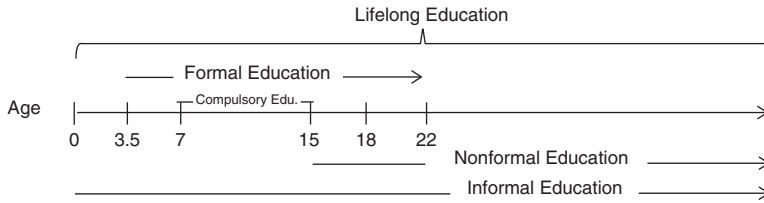


Fig. 8.1 Lifelong education as an integration of all types of education

The relationship between each type of education and lifelong education can be illustrated as follows:

According to Fig. 8.1, lifelong education covers formal, nonformal, and informal education. Formal education starts from early childhood education (over 3.5 years old) up to university and postgraduate education (approximately 21–30 years old), while primary education up through early secondary education is compulsory (7–15 years old). Nonformal education is mainly provided to serve those who leave school after compulsory education until the old age. Informal education can exist at every period of life from birth to death. The government has made efforts to reform every type of education to be in accord with lifelong education in order to enable Thais in all age groups to obtain quality lifelong education.

8.3 The Evolution and Development of Nonformal and Informal Education in Thailand

In the old days, before any kind of education was formally introduced, education or learning existed mainly in the form of informal learning. That is, people gained knowledge and experience from their day-to-day living, occupations, local traditions and culture, people in their communities, and their natural and social environments. For example, parents and older people informally passed on knowledge and skills in agriculture or other occupations to the younger generations. People learned local traditions and culture from their families and community activities. In addition, some forms of informally organized nonformal education also existed. For instance, local people sent their sons to help the abbots or monks do some work in the local temples. The abbots or monks in return taught them how to read and write. Young men learned Thai boxing from talented local boxers. Young people learned herbal medicine from their older generations or from those with local wisdom.

Education activities were available in these forms when in the year 1871 formal education was first introduced. King Rama V established a school in the palace for training soldiers and civil servants. Later, in 1884, the first school for the general public was established. Since then, formal education has been developed and extended to reach the school-age children throughout the country. When the number of schools increased, an administrative system was required. Consequently, the

Department of Education was set up in 1887 to look after all schools. The Department was upgraded to be the Ministry of Education in 1892. Six years later, in 1898, the first National Education Plan was introduced (Sunthorn 2000b).

Approximately 50 years later, nonformal education was formally introduced. That was when the Adult Education Division was established under the Department of General Education within the Ministry of Education in 1940. The development of adult education or, presently, nonformal education in Thailand can be divided into five phases as follows (Sunthorn 1989):

8.3.1 *The First Phase (1940–1945)*

In 1937, the government conducted the first national census. It was found that 68.8% of the Thai people over 10 years of age from the total population of 14.46 million were still illiterate (Sunthorn 2000a). A literacy campaign project, therefore, was launched. In addition, the government realized that this situation affected people's quality of life and national development as a whole if this problem were to persist. Therefore, the Division of Adult Education was established within the Ministry of Education in 1940 to deal with this situation. The activities and services provided by the Division of Adult Education at that time were called "adult education." The government formulated policies to eradicate illiteracy and asked for cooperation from related government organizations. The main purpose of adult education in the first period was to provide adults with literacy skills coupled with knowledge and understanding about citizen roles in a democratic society. A number of adult schools were established for this purpose. Adult education activity was still carried on even during 1941–1945 when the country faced the Second World War. However, during the World War, the adult education activity was rather minimal as the target groups were not ready to learn and the evening adult schools were temporarily closed for the safety of the learners.

8.3.2 *The Second Phase (1946–1960)*

Thus, adult education activity was deferred during the Second World War. After the end of the War in 1947, adult education was renewed. The objectives of adult education during this period were extended from promoting literacy skills and providing knowledge and understanding about the duty of citizens in a democratic society to including three more objectives: promoting people's occupations, improving people's living conditions, and making better use of people's free time. The scope of adult education services provided during this period, therefore, included (1) providing literacy skills for illiterate people, (2) organizing vocational training to promote people's occupations, (3) providing local libraries, (4) setting up popular education mobile units to provide knowledge useful for upgrading rural people's quality of

life, and (5) producing textbooks and printed materials to disseminate useful knowledge to all targeted people. In the year 1951, the government formulated the National Education Plan, in which adult education was both defined and mentioned. According to that plan, adult education was included as a part of the educational system of the country. Moreover, in 1954, the Ministry of Education with UNESCO support set up the Thailand UNESCO Fundamental Education Center (TUFECE) to train personnel working in the area of adult education (Sunthorn 1989).

8.3.3 *The Third Phase (1961–1976): Development Period*

Adult education during this period was broadly developed. In 1961, the government promulgated the First National Social and Economic Development Plan (1961–1966), followed by the First National Education Development Plan (1961–1966). The plan, although mainly focused on formal education, did provide guidelines for organizing adult education.

The activities were still called adult education. Additionally, the *khit-pen* (คิดเป็น) (literally meaning being able to think) philosophy was introduced and integrated into every activity or program of adult education at this time (Oonta 1985; Phanni 2015; Sunthorn 1989). *Khit-pen* is a Thai philosophy initiated by Dr. Kowit Varapipatana, a famous Thai adult educator, who was influenced by the Brazilian educator, Paulo Freire (see Fig. 8.2). This philosophy aims at enabling people to think carefully and reasonably in solving their day-to-day problems. To do that, people need to acquire related information (i.e., information about the problem, social and environmental contexts, and the approaches used by others to solve

Fig. 8.2 Dr. Kowit Varapipatana, “the father of Thai nonformal education” and advocate of the *khit-pen* (ability to think) philosophy



similar problems), before making a decision. Even if the problem solving is unsuccessful, people would not be discouraged to start the process of *khit-pen* again.

Adult education activities during this period were developed to serve people's needs and to adapt to the changing society and environments. The activities included the following:

1. Functional literacy program. This program was extended from teaching only literacy skills to cover basic arithmetic and life skills. Teachers for this program included both staff of adult education centers and volunteer teachers.
2. Adult basic education equivalent to lower primary education, upper primary education, lower secondary education, and upper secondary education.
3. Adult vocational education. Vocational training programs in several subjects were made available in three formats:
 - Vocational training courses were available at the Adult Education Center in each area.
 - Vocational training through mobile units to reach people in local areas.
 - Interest groups. Fifteen people, having the same interest in any vocational subject, grouped together and asked for an instructor from the local Adult Education Center.
4. Popular education. The Adult Education Center had mobile units which traveled to each local area to show entertainment films coupled with transferring useful knowledge and information to target villagers.
5. Reading promotion activities. These included setting up local public libraries, village newspaper reading centers, and book donation units at provincial and district levels.
6. Hill area education. This was nonformal education activity for diverse hill areas people such as the Hmong, Karen, and Akha.

8.3.4 The Fourth Phase (1977–1998): A Second Period of Education Reform

During this phase, there were several factors constituting education reform in Thailand, such as the concept of education for all, equal educational opportunity, and lifelong education (see Chap. 21). In addition, educational activities and services available were not adequate to serve the needs and living conditions of all the Thai people. Thus, the National Education Plan 1977 was introduced aiming at reforming the educational system of the country. This was the first national plan which formally introduced lifelong education. According to the plan, the educational system was comprised of both formal education and nonformal education. At that time, adult education was changed to be nonformal education due to its broadened scope of responsibilities. The Adult Education Division was thus upgraded to become the Department of Non-formal Education in 1979. The administrative

system of the department was decentralized from the national level to the regional and provincial levels.

Nonformal education activities in this period can be categorized into three main groups as follows:

1. Basic education. The activities in this group covered:
 - Functional literacy program equivalent to lower primary education.
 - Continuing equivalency education, which included three levels of basic education: upper primary education, lower secondary education, and upper secondary education. There were three methods of studying: classroom, distance learning, and self-learning.
2. Vocational training. Several subjects of vocational training were provided in three forms: training courses available at nonformal educational centers, mobile units, and classes for special interest groups.
3. Provision of knowledge and information. They were provided through various forms: local libraries, village reading centers, popular education, production and broadcasting of educational radio and television programs by the Center for Educational Technology (CET), science museums, and the Bangkok Planetarium.

During this phase, from 1983 to 1987, a major mass literacy campaign was carried out under the dynamic leadership of Kasama Varavan which reached over 600,000 targeted learners. It also prepared rural communities to carry out literacy efforts on their own (Kasama 1989). Interestingly, it was during exactly this period that Thailand had one of the world's hottest economies which was a "darling of journalists and economists" (Hewison 1999: 21; Jansen 1997).

8.3.5 The Fifth Phase (1999–Present)

To enable the Thai people to face and adjust themselves appropriately to the rapid change of social and economic environments in the highly competitive knowledge-based society, Thailand has had to develop its education system continually. During this period, the National Education Act of 1999 has provided the framework for Thai education. The Act made the lifelong education philosophy a basic principle guiding the whole education system of the country. It promotes the provision of every type of education, formal, nonformal, and informal education in the interests of lifelong education. In the Act, moreover, definition and guidelines for providing informal education are clearly articulated. Nonformal and informal education activities are provided in several styles in order to let all target groups obtain quality lifelong education.

In the year 2008, the NonFormal and Informal Education Promotion Act was promulgated. With this Act, the new name of the department became the Department of the Non-Formal and Informal Education (DNIE). This special act supported the development of nonformal and informal education to reach every group of people in

all areas equally. Network creation at all levels and participation of networks in providing and promoting nonformal and informal education are also emphasized.

Nonformal education activities during this period are categorized into three main groups: nonformal basic education, vocational skill training, and nonformal education for quality of life development. The activities in each group are provided in various forms and methods in order to reach and serve the needs of all different target groups. A number of approaches were introduced for organizing these activities. They include, for example, creative shifts among the three forms of education: formal, nonformal, and informal education, accreditation and recognition of prior learning, vocational training which emphasizes the sufficient economy philosophy, and life skill-creating activities.

For informal education, it has been developed from moving mobile units to provide up-to-date information to people in local communities to setting up various forms of learning resource centers, for example, local libraries; educational information and learning centers; disseminating up-to-date knowledge and information through various types of educational media including educational radio, television, video programs, and the Internet.

Both nonformal and informal education activities have been developed continuously in terms of content, methods, and strategies to reach the target groups. Participation of all sectors in each community is promoted in order to provide every individual of target groups access to quality lifelong education.

8.4 Laws and Policies Supporting Nonformal and Informal Education

The following are laws, policies, and plans that provide directions and guidelines for developing and supporting nonformal and informal education.

8.4.1 The National Education Plan 1951

In the year 1898, the first national education plan was introduced, followed by a number of national education plans issued in 1903, 1913, 1921, and 1936, respectively. These plans, however, did not mention adult education. It was not until 1940 that the Adult Education Division was established with a policy of eradicating illiteracy among adults. The National Education Plan 1951 was later introduced. It was the first national education plan which referred to adult education and defined it. According to the plan, the educational system included preschool education, primary education (compulsory), secondary education, higher education, vocational education, and adult education. Adult education was defined as a type of education that set the study time flexibly. It was provided for adults who had no chance to

study during their school-age period, who needed more education to improve their occupational skills, or who were unable to study in the formal school system. The plan was in effect until 1959.

8.4.2 *The National Education Plan 1960–1976*

In this plan, compulsory education was extended from 4 to 7 years of primary education. Adult education, in addition, was mentioned in No. 26 of the guidelines for organizing education stating that: “The government should support adult education for adults who have no chance to study during their school age, who want to gain more knowledge to improve their occupations, or who were unable to attend formal education.”

8.4.3 *The National Education Plan 1977 (ONEC 1977)*

This plan was developed by using data from the Education Reform Committee 1975 (ONEC 1976). It contained more guidelines for adult education, the so-called out-of-school education or nonformal education during that time. It was the first plan that formally referred to lifelong education. The main concepts related to out-of-school education and lifelong education were:

1. Education should be a lifelong process. The plan shifted from focusing only on formal education to cover all types of education including out-of-school education. It aimed at providing lifelong education for the Thai people.
2. Formal education and out-of-school/nonformal education were related and interchangeable. Learners of nonformal education could transfer to formal education.
3. The government should be proactive in providing and supporting all forms of out-of-school education in order to extend lifelong education opportunities to all.

8.4.4 *The National Education Act 1999 and Amendments 2002 (ONEC 2001, 2003)*

According to this Act, which is still effective, education will be provided as lifelong education. Every sector in the society is encouraged to participate in providing lifelong education to the people. The educational system is comprised of three forms: formal, nonformal, and informal education. The Act provides the definition of each form and guidelines for providing every form of education for the whole system. The main principles of this Act are described in Chaps. 1 and 21.

Although the National Education Act 1999 provides guidelines for the whole educational system, they can be used for each type of education, including non-formal and informal education. In the Act, informal education is first formally introduced, coupled with its definition and guidelines for provision and support (see Chap. 21).

8.4.5 The Nonformal and Informal Education Promotion Act 2008 (ONIE 2008)

This Act formulated all details directly related to nonformal and informal education. It gives the definitions of nonformal and informal education. The main concepts of the Act include the following:

1. Nonformal and informal education should be provided with equity and quality to all people.
2. Nonformal education is provided and promoted by relying on the following principles: providing equal access, reaching all people, ensuring good quality, relating to people's actual living conditions, decentralizing authority to local institutions, and encouraging participation of local networks in organizing non-formal education programs.
3. Informal education is provided and promoted by relying on the following principles: enabling people to gain access to learning resources which serve their interests and way of living, developing diverse kinds of learning resources, and organizing useful and practical learning activities for learners.
4. The goals of providing and promoting nonformal education are to enable people to obtain education continually and develop human capacity and society using wisdom and knowledge as a base for social and economic development and quality of life improvement and to encourage networks to be motivated and ready to participate in providing nonformal education activities.
5. The goals of providing and promoting informal education are to serve learners with knowledge and basic skills for searching knowledge which supports life-long learning, to provide learners with knowledge related to their interests and necessity for developing their quality of life, and to enable learners to make use of knowledge obtained.

Apart from the abovementioned laws, policies, and plans, a comprehensive lifelong education act which covers all types of education is expected to be promulgated in the near future.

8.5 Administrative System of Nonformal Education and Informal Education in Thailand

The main organization responsible for nonformal and informal education in Thailand is the Office of the Non-formal and Informal Education (ONIE). The name was changed from the Department of Non-Formal Education to the Office of Administration of Non-formal and Informal Education in 2003 and 2008, respectively (ONIE 2008).

ONIE has set the vision that “all Thai people obtain quality and equal lifelong education in order to make the whole country form a learning society.”

The main mission of the organization includes:

1. Organizing and promoting quality nonformal and informal education
2. Promoting participation of networks both within and outside the country in providing nonformal and informal education
3. Promoting communities to develop lifelong learning processes for sustainable development,
4. Encouraging the use of science, information, and communication technologies to provide efficient lifelong education
5. Developing a personnel and management system in order to organize nonformal and informal education efficiently and effectively

According to the administrative structure of the country, Thailand is comprised of five regions: the North, the Northeast, the Central, the East, and the South. In each region, there are a number of provinces. The total number of provinces of the whole country is 77. Each province is comprised of districts, and each district in turn is made up of sub-districts each of which includes villages. The administrative structure of ONIE follows exactly the administrative structure of the country with the purpose of bringing nonformal and informal education to reach the entire local population. The headquarters of ONIE is part of the Ministry of Education. The organization has five regional centers, has 77 provincial centers, and has offices in all 998 districts of the country. In addition, the organization is in the process of developing sub-district learning centers in all areas of the country (Fig. 8.3).

ONIE at the ministry level is responsible for establishing the main policies and plans, promoting policy implementation, allocating budgets and resources, initiating new approaches and strategies, and monitoring, supervising, and giving advice and suggestions to all levels.

The Regional Non-Formal and Informal Education Centers are mainly responsible for academic and R and D work. Their role includes developing local curricula appropriate to the regions, identifying and trying out new projects, conducting studies or research to find out effective methods for organizing nonformal and informal education, developing innovations in nonformal and informal education, and developing the personnel of nonformal and informal education. Then they transfer knowledge or innovations they have discovered to the provincial centers for application at the local level.

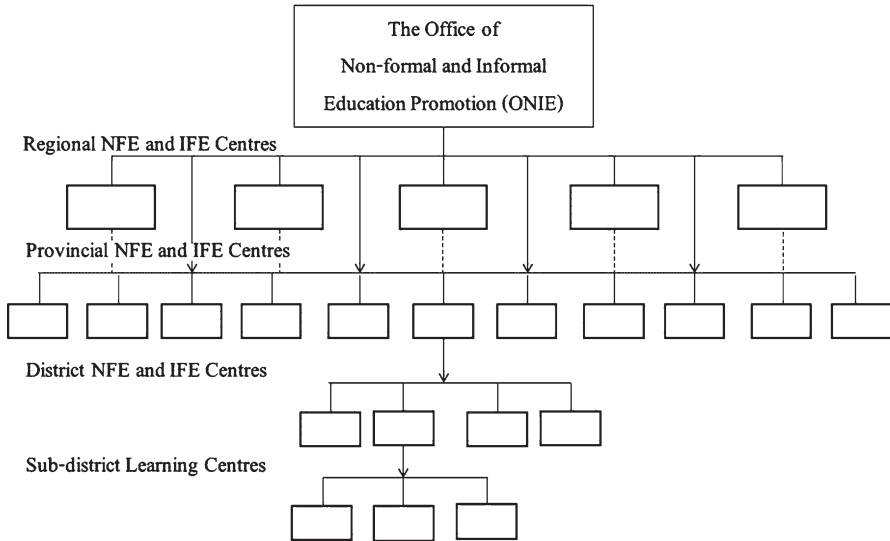


Fig. 8.3 Administrative structure of ONIE

The Provincial Non-formal and Informal Education Centers are mainly responsible for bringing the designed policies and plans into action at the district and sub-district levels. Each provincial center usually develops its own strategic plan, conducts needs assessments and situation analyses in order to design nonformal and informal education activities, establishes local curricula, coordinates and promotes networks for organizing nonformal and informal education, organizes activities for personnel, conducts research and development, conducts follow-up and evaluation studies, and promotes and supports the district centers to organize non-formal and informal education activities.

Within the Provincial Non-Formal and Informal Education Promotion Centers, there are District Non-Formal and Informal Education Promotion Centers for all districts. The district centers act as the operation units bringing all nonformal and informal education activities to all local people. Their roles include the following:

1. Organizing nonformal and informal education activities
2. Encouraging, supporting, and coordinating networks to organize nonformal and informal education
3. Organizing, developing, and promoting local learning centers
4. Mobilizing resources, including local wisdom, for promoting and supporting nonformal and informal education activities
5. Following up, evaluating, and providing reports on nonformal and informal education activities

The District Non-Formal and Informal Education Centers try to have nonformal and informal education activities to reach people in every part of their districts.

Therefore, a community learning center is set up in every sub-district as a branch of the respective district center. ONIE is presently trying to develop the community learning centers to become Sub-district Non-Formal and Informal Education Centers.

In each community learning center, there is one NFE educator and one to two volunteer teachers. They are responsible for providing nonformal and informal education activities for local people in every village within the sub-district. The NFE educator and volunteer teachers utilize the community-based strategy in organizing nonformal and informal education activities with the support of the district and provincial centers. This type of community participation is strongly encouraged.

Network Organizations

However, organizers of nonformal and informal education are not limited only to the responsible department as those in formal education. Therefore, apart from ONIE, the government has continuously encouraged other government agencies, non-government agencies, associations, local organizations, and groups of people in communities to take part in organizing nonformal and informal education. At present, these agencies which take part in organizing nonformal and informal education are rather broad and varied. They are, for example, local offices of the following ministries and agencies: Ministry of Public Health, Ministry of Agriculture and Cooperatives, Department of Forestry, Department of Fisheries, District and Sub-district Local Administration Organizations, religious organizations and temples/mosques, local associations, NGOs, vocational groups, local wisdom groups, private firms, industrial organizations, and local education institutions.

ONIE and its local branches coordinate with these networks at every level from the national to the local. These networks participate in organizing and supporting nonformal and informal education in several forms, for example, organizing certain activities like the Department of Agriculture providing knowledge and skills for farmers. Some of them act as co-organizers, while some support resource persons, learning materials, funds, and places for activities. Without these extensive networks, nonformal and informal education activities will hardly reach the entire target groups.

8.6 Nonformal and Informal Education Activities and Related Target Groups

This section provides the details on nonformal and informal education activities available at present and the specific target groups of nonformal and informal education (Table 8.1).

Table 8.1 Number of learners who enrolled and completed each program in 2015

NFE programs	Registered	Completed
Primary education	116,117	12,710 (11%)
Lower secondary	478,896	90,557 (19%)
Upper secondary	644,298	147,068 (23%)
Certificate in vocational education	36,875	3496 (10%)
Literacy promotion	301,473	126,815 (42%)
Education for hill peoples	90,840	17,897 (20%)
Vocational training	184,752	173,201(94%)
Education for life-skill development	451,049	430,572 (96%)
Education for community and social development	472,784	452,289 (96%)
Learning about sufficient economy	277,147	260,818 (95%)
Community vocational training centers	489,450	464,659 (95%)
Total	3,543,681	2,180,112 (62%)

Source: Office of Nonformal and Informal Education Promotion. (2016). *Report on nonformal education activities in the physical year 2015*. Bangkok: Office of Non-formal and Informal Education Promotion

8.6.1 Nonformal and Informal Education Activities Available at Present

8.6.1.1 Nonformal Education

Nonformal education activities available at present can be categorized into three main groups as follows:

1. *Nonformal basic education*. Nonformal education in this group is comprised of the following activities:
 - *Literacy program*. The activity is provided for out-of-school individuals who cannot read or write or those who have lost their literacy skills. The activity is organized in several forms, with emphasis on one-to-one teaching methods. It is widely promoted that people in the same family can teach the family members. For example, children can teach their parents or grandparents. The community members as volunteer teachers teach their neighbors. Monks, those with local wisdom, or retired officers, also as volunteer teachers, can teach the illiterate in the same community. In addition, staff of nonformal and informal education centers can organize literacy classes in each community.
 - *Reading promotion program*. This activity is provided for helping newly literate people retain their literacy skills. Moreover, it aims to create reading habits among the general population. The activity is organized in various forms such as setting up village reading centers, setting up reading corners at local temples or at some villagers' households, and providing mobile reading boxes on bicycles, motorcycles, or vans to reach people in rural communities.
 - *Basic education equivalent to primary, lower secondary, and upper secondary levels*. All after school-age individuals can join this activity. Learners can

choose to study in class or via distance learning or self-study. After finishing the program, the learners will obtain the certificate of primary or lower secondary or upper secondary level. With the latter qualification, they will be eligible to even go on to college.

2. *Vocational education.* Nonformal education in this group aims at proving people with vocational knowledge and skills useful for improving their present occupational skills, or for getting extra jobs for more income, or for finding new jobs. The activities in this group include:

- *Short-term vocational training.* It aims at helping people engage in income-generating activities, apart from their own current occupations. Each training course may last for 1 day, 2 to 3 days, or 1 week, depending on the subjects. The subjects provided depend on the needs and conditions of people in each community, such as cooking, making desserts, making artificial flowers, fruit preservation, basket weaving, and mushroom growing.
- *Long-term vocational training.* The activity in this group usually lasts 30 h or longer. Learners attending this training may find extra or new occupations. The training courses are provided in various fields, such as dressmaking, hair-dressing, mechanics, electricity, air conditioner repair, motorcycle repair, silk weaving, Thai therapeutic massage, and wood carving.
- *Interest group vocational training.* People in the same community who have the same interest can get together as a group and ask for vocational training from their respective district NFE and IFE centers. The center then finds instructors or resource persons and organizes the training sessions for them. A training session usually lasts for 3 h or 1 day up to 1 week. The subjects depend on learners' interests, such as Thai traditional desserts, fish farming, tree farming, mushroom growing, making natural manure or fertilizer, growing organic vegetables, or making herbal medicines.
- *Forming community vocational groups.* ONIE has established a creative policy of "one community one vocational group." Each community, or sub-district, or village, therefore, is encouraged to set up a vocational group most suitable for their contexts, such as silk weaving group, fruit preservation group, basket weaving group, or Thai dessert group. The group members participate in every step of forming and operating the group, from planning and producing the products to marketing.

3. *Nonformal education for quality of life and community development.* Activities in this group can be divided into two categories: nonformal education for quality of life development and nonformal education for community development.

- *Nonformal education for quality of life development.* These types of activities aim at providing people with knowledge and life skills useful for living and improving their quality of life. Activities are provided for all individuals in the community and for special target groups such as young children, teenage groups, the workforce, elderly people, or women's groups. Moreover, activities are provided in various forms: lectures, workshops, exhibitions, and practice, for example.

Examples of activities for the general population in communities are providing knowledge on living by following the sufficiency economy philosophy, daily laws, social welfare services, income generation, marketing skills, knowledge-acquiring skills, problem-solving skills, self-employment skills, communication skills, knowledge about virtue and ethics, sports and hobbies, and organizing religion camps.

Examples of activities provided for special target groups are:

- For young children: knowledge about health and hygiene, Children's Day activities
- For teenage groups: virtue and ethics camps, drugs prevention activities, and computer skill development
- For workers: working and living under the sufficiency economy philosophy, language skills, and working skills for entrepreneurs
- For elderly people: occupations for the elderly, health and hygiene, self-adjustment in old age, social welfare, and exercise for the elderly
- For women's groups: household accounting, income-generation activities, participation in community activities, and setting up vocational groups
- *Nonformal education for community development.* This type of activity aims at promoting people's participation in developing their own communities. Activities provided include community analysis, setting up community development plans, developing learning communities, community natural resources preservation, community environment development, community tradition and culture promotion, drug-free community, and green and clean community.

8.6.2 *Informal Education*

Informal education is a type of education for people in every age group: young children, students, adults, and elderly people. Informal education is provided in various forms in order to provide educational opportunities to all community members. Then learning can exist anywhere and anytime. The activities provided include the following:

1. *Libraries.* Public libraries are made available at provincial, district, and sub-district levels. In some districts, district and sub-district libraries are available in other forms, such as libraries at community temples, libraries at railway stations, and libraries at villagers' households.
2. *Village reading centers.* The educational officers of District Non-Formal Education Centers encourage village committees and other villagers to set up village reading centers. Most reading centers are small kiosks often made of bamboo trees. There are in each reading center different kinds of books donated by government and non-government agencies as well as other people. Every villager can come for reading at their free time. Some centers are also used as

places for meeting, literacy classes, vocational training classes, or informal gatherings.

3. *Community learning centers.* The staff of District Non-Formal Education Centers in each district have managed to set up a community learning centers in every sub-district. Most centers are developed from district information centers. There are, in each community learning center, a reading corner and an exhibition corner, with a set of computers for searching for knowledge and information. It also provides some space for organizing nonformal education activities, such as basic nonformal education programs equivalent to primary and secondary school levels, vocational training courses, or other activities for quality of life improvement and community development.
4. *Village news towers.* Village committees in each village are encouraged to set up and operate a village news tower. The committee members or responsible villagers may take turns to disseminate useful news, knowledge, and information to other villagers in the area, through the village news tower. The announcements are usually provided in the morning and the evening.
5. *Educational radio and television programs.* The Center for Educational Technology (CET) of ONIE takes charge of producing and broadcasting educational radio and television programs for nonformal education learners and the general public throughout the country. In addition, ONIE in cooperation with the Thaicom Foundation has initiated a satellite education project in order to improve the quality of available distance educational programs and provide up-to-date knowledge and information to the general public.
6. *National Science Center for Education and Provincial Science Centers for Education.* These centers are established in Bangkok and 12 other provinces. They provide knowledge and exhibitions of science and technology for school children, nonformal education learners, and the public.

8.7 Nonformal and Informal Education Provided by Other Agencies and Organizations

Even though ONIE is the organization primarily responsible for organizing most of the nonformal education and informal education activities as mentioned above, it also encourages and coordinates related sectors to help in organizing such activities. The following are examples of several types of activities run by other concerned agencies and networks:

- *Nonformal Education*

1. Nonformal education by related government agencies.

Some government agencies run their own activities which can be regarded as nonformal education. For example, Ministry of Public Health at provincial and district levels provide knowledge and information about health and

hygiene to local people by various forms of activities, and Ministry of Agriculture at provincial and district levels provide knowledge and information about agriculture to farmers.

Some government agencies run the joint projects with ONIE. For example, ONIE and the military provide basic education and vocational trainings for the conscripts; prisons and ONIE organize basic education for the prisoners; and Ministry of Public Health and ONIE at provincial and district levels provide information about health for the elderly.

2. Nonformal education by private agencies.

A number of private agencies run activities which can be regarded as non-formal education. For example, private agencies organize language courses, music courses, painting courses, computer courses, and cooking courses; and private companies organize on the job training for their personnel.

Private agencies run joint projects with ONIE. For example, factories and ONIE organize basic education for the workforce; petrol stations and ONIE provide basic education for workers; and restaurants and ONIE provide basic education and vocational education to their workers.

3. Nonformal education by local sectors.

The district administration organization and ONIE at district level organize reading promotion activities; the local temples and local religious centers with the support of ONIE organize various kinds of nonformal education activities such as basic education, vocational education, and quality of life development activities; the local wisdom with the support of ONIE organize different kinds of indigenous knowledge training for people in communities; etc.

4. Nonformal education by universities.

A number of universities offer both certificate and non-certificate short courses in the fields of their expertise for the general public. Moreover, some universities offer bachelor's degree up to doctoral degree programs in non-formal education or lifelong education for providing educators to work in the field of nonformal and informal education and community development.

- *Informal Education*

Concerned agencies and networks take part in providing informal education directly and indirectly. Examples are some government and non-government agencies, local organizations, religious sectors, and local wisdom and people in communities setting up different kinds of learning resource centers such as lively libraries, learning centers in factories, libraries in local temples, local museums, local wisdom centers, arts and crafts centers, and herbal gardens.

Obtaining knowledge and information from different kinds of media is another main source of informal education. A number of government and private agencies provide knowledge and information to the public by printed media, radio or television programs, videos, and the Internet. The open university transfers instruction and information to the learners by various media which the general public can easily access. Moreover, there are some programs of the university provided to serve the public.

With the emerging trend of ICT and social media from private providers all over the world such as massive open online courses (MOOCs), this can be a large and convenient source of informal education for the world population, including Thai people. Currently many Thais, especially young and working-age people obtain directly and indirectly informal education through the Internet and various forms of social media. People obtain informal education in everyday life at any time and any place. It will be a real valuable informal education if people know how to select the proper and reliable information which are useful for them (November 2008; Reich and Daccord 2015).

8.8 New Approaches and Projects

Nonformal and informal education activities are usually provided in the abovementioned forms. When the government introduces new educational policies in each period, new approaches or new projects are also introduced to each group of activities. For instance, when the present National Educational Development Plan (2012–2016) was promulgated in 2012, ONIE has set the policy to promote several new projects since then, such as reading skill training, basic education for the workforce, vocational groups in each community, language skills for participating in the ASEAN Economic Community (AEC), and education for elderly people. The following activities are, therefore, made available in each group of nonformal and informal education (ONIE 2013).

For nonformal education, new approaches and projects are introduced as follows:

1. *Basic nonformal education.* The new projects introduced include village excellent reading corners to promote reading habits among villagers, basic nonformal education for the workforce, basic nonformal education English program for people who want to improve their English skills coupled with basic education, basic nonformal education for school-age children who dropped out from the formal school system, and nonformal education for diverse ethnic groups.
2. *Vocational education.* The new projects introduced are vocational management skills. After people in each community set up their vocational groups, they are provided with managing and marketing skills. There is also the promotion of learning natural organic agriculture for certain target groups.
3. *Nonformal education for quality of life development and community development.* The new projects are, for example, nonformal and informal education for elderly people, Southern Tai dialect and Malay language for communication, and global learning for elderly people in multi-cultural communities.

For informal education, various kinds of learning resources and learning centers are promoted in order to provide lifelong learning opportunities for all. One new approach is to create an ASEAN Language Center in each district nonformal and informal education center. The teachers are individuals from various Asian countries who are working in Thailand.

8.9 Target Groups of Nonformal and Informal Education

8.9.1 Target Groups of Nonformal Education

Target groups of nonformal education include all out-of-school individuals aged 15 years or older to elderly people. The total population of Thailand is roughly 68m. Approximately 15 million are those in early childhood up to 15 years. The rest are target groups for nonformal education. They cover the following groups:

- School-age people who do not have a chance to continue formal education at the upper secondary and higher education level (15–25 years old).
- Working people in early adulthood (26–35 years old).
- Working people in middle adulthood (36–60 years old).
- Elderly people (over 60 years old).

With respect to the target group of those who did not complete upper secondary education, let me share a rather dramatic example, that of Ms. Malichien Pengwong who was from Seka in the remote Northeast (Isan). Because of needing to care for her family, Malichien was unable to complete upper secondary education, but later through nonformal education she was able to complete the equivalent of upper secondary education. She went on to become the first ever female *kamnan* (กำนัน) (sub-district head) in Thailand and later received the award as Thailand's most outstanding *kamnan* (out of over 7000) (Editorial 1994; Juree 2008; NCWA 1993, pp. 202–203; Yuphawong 2010).

Apart from classifying the target groups of nonformal education by age, some educators also classify them by other criteria. For example, they include the following groups by occupations such as fishermen, industrial workers, farmers, government officers, non-government officers, and laborers. By place of residence, they may be classified as urban people, rural people, remote rural people, hill peoples, and border area people. By general and special target groups, they include out-of-school youth, farmers/agriculturists, workforce in industries, local community leaders, conscripts, inmates, underprivileged and disadvantaged people (see Chap. 12), hill peoples (Lewis and Elaine 1998), women, elderly people, and other ethnic groups, people with disabilities, and prisoners.

Moreover, some responsible agencies classify them according to national policy. According to the policy of the year 2011, for example, ONIE has emphasized two main special groups, besides the general target groups:

1. The target groups requiring quality of life development. These include the disadvantaged groups, elderly people, and those from diverse ethnic groups and communities (see Lewis and Elaine 1998).
2. The target groups requiring capacity development in order to become more economically competitive. They are the workforce groups.

8.9.2 *Target Groups of Informal Education*

Target groups of informal education can be every person from birth to death or, in other words, the whole population of the country. This is simply because informal learning can take place within everyone, anywhere, and at any time.

It can be concluded that the target groups of nonformal education are about 80% of the whole population of the country while the target groups of informal education are the entire population.

8.10 **Examples of Best Practices of Nonformal and Informal Education Activities**

8.10.1 *Nonformal and Informal Education Activities at Phonoi Village*

1. *General Background on Phonoi Village*

Phonoi Village is a village in Phone Soong Sub-district, Pathumrat District of Roi Et Province in the Northeast of Thailand. This village has 250 households. The main occupation of people is agriculture or rice farming. Their income obtained from their crops once a year is quite low. For education, most villagers have primary education or a lower secondary education background. As to social and cultural conditions, the villagers live in harmony. They give help to one another whenever they could and are usually involved in important traditional activities. For formal education, there is a primary school for school-age children in the village. When the children finish their study from the village school, they can continue their study at the district or a provincial school if their family can financially support that.

2. *Nonformal and Informal Education in the Village*

The Pathumrat District Non-Formal and Informal Education Center is responsible for the provision of nonformal and informal education activities in every sub-district within this district, including Phone Soong Sub-District.

In Phone Soong Sub-District, there is one community learning center and two NFE teachers with the support of the district center. The two teachers are responsible for every village within this sub-district, including Phonoi Village.

Starting Stage Before organizing nonformal and informal education activities in each area, the staff or teachers of the local nonformal and informal education center usually coordinate with the village committee and respected persons in the village such as the abbot of the local temple, those with local wisdom, or the elderly. The staff will then obtain advice, guidelines, and support from these people about how

to conduct nonformal and informal education activities. In the case of Phonoï Village, the abbot of the local temple, Phothikaram Temple, was particularly mindful and recognized the necessity of improved education for villagers. He started his support by asking for book donations from both in and outside the village and setting up a reading corner in the temple. In addition, he bought used sewing machines for starting a vocational group for the village women. He also bought used computers for the young people to develop useful IT skills.

Needs and Problems Analysis The responsible NFE teachers with the cooperation of the village leaders and committee, the abbot, those with local wisdom, and the representatives of villagers conducted needs and problems assessment through several activities, such as village meetings, brainstorming, small group meetings, focus groups, and informal gatherings. The results identified the following major needs:

- Vocational training courses for generating additional income
- Producing natural fertilizers instead of buying expensive chemical fertilizers
- Knowledge about improving health
- Setting up vocational groups and marketing information
- Planting organic vegetables
- Drug prevention
- Activities for elderly people
- Village news tower
- Improved basic education

Creating the Village Development Plan The village committee, which was comprised of village leaders, representatives of villagers, the abbot, those with local wisdom, and NFE teachers together with the representatives of the government agencies developed a village development plan. Problems and needs of villagers identified were used as basic data for developing the plan.

Organizing Nonformal and Informal Activities According to the village development plan, the nonformal education and informal education activities planned to be organized are in eight groups of activities as follows:

- *Learning center.* The activities provided in the learning center cover three types of nonformal education activities. They are (a) literacy program and basic education equivalent to primary and secondary school levels, (b) vocational training in various fields, and (c) activities for quality of life development such as promoting life skills, community development, and drug use prevention (Fig. 8.4).

Village Bank This activity encourages local savings. The villagers can obtain loans for supporting their occupational activities. The villagers run the bank with the support of the local bank.

Fig. 8.4 Vocational training (mushroom growing)



Fig. 8.5 Community child care center



Village Cooperative Shop The villagers can sell and buy local products within their village. The villagers take turns to look after the shop. This reduces their costs.

- *Village health center.* It is the first health care available in the village. The staff of the local health center have main responsibilities with the help of villagers.
- *Village child care center.* Volunteer teachers look after the center. The villagers can leave their children at the center while going to work at no cost (Fig. 8.5).

Village ICT Hub Volunteer teachers in the village look after the center. Every villager, children, and adults can practice and use computers for searching for knowledge and information.

Village Cultural Promotion Center This center provides activities of several genres to provide and transfer local traditions and culture to younger generations (Fig. 8.6).

Activities for Special Target Groups These include organizing Children's Day for village children, establishing an elderly people's group, and setting up a women's group and other activities (Fig. 8.7).

Fig. 8.6 Community ICT hub



Fig. 8.7 Activities for special groups (children, elderly people, women's group)

As for the place of these activities, it was agreed that all activities can take place together in the space of Phothikaram Temple. This is because the temple is located at the center of the village and it has much available space. As every activity is provided at the same place, it is very convenient for the villagers. Moreover, temples were, in the past, the center of all kinds of community activities, including learning activities, and, thus, they are considered the most appropriate place for all these activities.

Participation of Related Agencies and People They include the local administration organization, the District NFE Center, the District Public Health Center, the District Community Development Center, the District Agricultural Center, local primary schools, the village committee, and the local temple, especially the abbot.

People in the village were also encouraged to participate in operating the activities in various ways such as expressing their needs and problems, joining in developing the community plan, and helping with follow-up activities.

Results Achieved The benefits obtained from the activities can be summarized as follows:

- It was the community-based development. The activities were provided to serve the needs of people and suit the context of the village.

- It was the holistic quality of life development. The activities covered all aspects: occupations, economy, health, and culture.
- Activities provided served every group of people, from young children to elderly people.
- Activities provided promoted income generation. Villagers do not have to leave their local residence to find jobs in the city.
- It extended lifelong learning activities for people in the village. Learning resources were available within their own village. They could learn at their own convenience.
- People recognized the importance of education.
- It promoted people's participation in their community development.
- It promoted participation of all related agencies: governmental organizations, non-governmental organizations, and local organizations in an integrated way.
- It created learning habits among young people. Having several kinds of learning activities help create a positive learning climate. Older generations could be good examples of learning for the younger generations and vice versa.

8.10.2 Informal Education Activity: Village Reading Corners in Homes Project

In the knowledge-based economic society at present, people must have capacity to search everywhere for useful and up-to-date knowledge and information (Gros et al. 2015; Kinshuk and Huang 2015). The Office of the Nonformal and Informal Education (ONIE) recognizes that reading ability and reading habits are key instruments in searching for new and relevant knowledge. ONIE has therefore initiated a policy of setting up reading corners in homes in each community to foster a reading culture. This policy has been transferred for implementation to the sub-district and village levels throughout the country by the district nonformal and informal education centers.

In each village, the reading corners in homes are made available in several formats. The following are examples of reading corners in the village where I did research.

1. *A reading corner at a villager's household.* A 76-year-old villager in the village which I visited has a rather large two-story house. After learning about this policy from NFE teachers, she turned some down-stair space of her house over to become a library or a reading corner. Books and reading materials were provided from the district nonformal and informal education center and donated from several sources including items from her brother. The reading corner was of interest to other villagers of all age groups. They visited the home to read every day. Apart from setting up a small library, the lady also gave additional space for the NFE teacher to organize some vocational training classes.



Fig. 8.8 Mobile reading libraries

2. *A reading corner at a hairdresser's home.* One family in this village with a husband, a wife, and two daughters turned their house into a beauty salon. They were also interested to devote some parts of their house and some money to set up a reading corner. Not only the people coming for hairdressing but also other villagers spent their time at the reading corner. Some other activities were also available at the reading corner. For example, school-age children came for tutoring. In addition, the couple and their children assisted the district center in doing public relations about important reading corner activities.
3. *Mobile reading libraries.* Apart from having reading centers attached to households or other buildings, the district nonformal and informal education centers introduced mobile reading libraries. A mobile reading library was made available in various forms such as on a van, on a bicycle, or on a motorcycle. Each type of vehicle would carry books and printed materials to contact people in every part of the village, depending on the timetable. The villagers could borrow books or printed materials and return them on the next visit of the mobile reading library (Fig. 8.8).

Results Achieved This project brought the following benefits to each village:

1. Creating a learning climate in the village. It is a motivation for villagers to participate in the activities of the reading corners.
2. Developing reading skills among villagers. It protects them from relapsing into illiteracy.
3. Creating reading habits among villagers.
4. Building villagers' ability to search for new knowledge and information they need.
5. Building villagers' ability in using knowledge and information obtained to improve their occupational skills and their quality of life.
6. Promoting people's participation in organizing activities for their community development.
7. Promoting cooperation of concerned agencies in organizing informal education activity.

8.11 Assessment of NFE and IFE Activities.

According to assessment data related to NFE and IFE activities between 2011 to 2015 organized by ONIE, the main results were as follows (ONIE 2015b:18–24). Large and growing numbers of individuals participated in nonformal and informal education activities, and they increased year by year. For example, in the basic nonformal education program, there were 1,277,989; 1,293,025; and 1,353,432 people enrolled in the program in the years 2011, 2012, and 2013. Among them, 195,854; 260,402; and 428,350 graduated, respectively. For the reading promotion activity, there were 189,461; 191,849; and 296,146 people enrolled and 54,678; 73,558; and 104,484 graduated in the years 2011, 2012, and 2013, respectively. For the program (nonformal education for quality of life development: learning process by following the sufficiency economy philosophy), there were 427,526; 341,043; 395,348 individuals enrolled. For the six programs of informal education, radio programs for education, educational television programs, media services for education, science exhibitions for education, science activities for education, and reading promotion in the public libraries, there were 26,734,278; 25,187,383; and 32,644,114 people who participated in these activities in the years 2011, 2012, and 2013, respectively.

Even though these results come out in a positive direction in terms of a large and growing number of participants, some weak points are still found. According to the information in the situation analysis of ONIE, the following main weak points have been identified (ONIE 2015a, b: 25–27): The learning achievement of students in basic education programs was quite low; strict regulations and rules for organizing education were not suited to the nature of nonformal education which needs more flexibility; the number of available personnel did not match with the number of activities to serve a diverse and large group of people; lack of the continual development of personnel; information systems need to be improved; amount of budget allocation did not match with the number of the target groups spread out across the country; the change of politics in each period has affected the continuity of the activities.

Unfortunately, there is a lack of tracer studies to assess the outcomes of vocational training programs. Also there are little data on the actual utilization of learning resources provided. Finally, rigorous tracer studies are needed to see what happens to those completing equivalency programs. These kinds of studies could be done by the new R and D center proposed in this book (see Chaps. 19 and 27) or by the regional R and D centers of ONIE.

According to the results from follow-up surveys, ONIE devotes many efforts to identify strategies to solve the problems and to ensure that the activities reach and meet the diverse needs of the target groups which are more than half of the whole population. The main aim is to have all Thais have access to lifelong education. Currently in 2016, ONIE is in the process of proposing the Non-Formal and Informal Education Development Plan (2016–2020) and the Lifelong Learning Act.

8.12 Concluding Thoughts

Nonformal education in Thailand was started in the form of “adult education.” The first target group was illiterate adults. But over time its scope was expanded to become “nonformal education” because it had to serve also school-age people who are not able to study in formal schools.

Informal education is actually the first kind of education existing as long as human beings, but ironically it is the last type formally introduced in the national education system.

The main organization responsible for nonformal and informal education is the Office of the Non-formal and Informal Education (ONIE), Ministry of Education. It has branches or centers in every region, province, district, and sub-district. It is an administrative mechanism bringing policies into action at the local level.

Thailand has adopted a lifelong education principle. Therefore, every form of education (formal, nonformal, and informal education) is organized with the purpose of extending quality lifelong education for all.

With the goal of promoting lifelong education, nonformal education and informal education are organized with the objectives of serving people with basic knowledge, occupational skills, and up-to-date knowledge and life skills for their use for living and adjusting themselves successfully to the rapidly changing society and environments during every period of life.

The activities of nonformal education cover three main groups: basic non-formal education, vocational training, and education for quality of life and community development. For informal education, the focus is on providing various forms of learning resources or learning centers and being available in every part of local areas for easy access. In addition, several kinds of media and technology are employed for delivering up-to-date knowledge and information. The approaches and methods for organizing activities are developed following the policies and plans emphasized by the concerned organizations and stakeholders in each area.

Nonformal and informal education is designed to serve more than 80% of the whole Thai population. The target groups vary in terms of age, occupation, educational background, needs, and residence. Thus, the main responsible organization (ONIE) encourages participation of all sectors in each community and society, especially from local people. It could be argued that the ONIE is the arm of the ministry which is most genuinely decentralized and has had the most success in serving well Thailand’s large rural and remote populations, a wonderful and inspiring legacy of Dr. Kowit Varapipatana, the “father of Thai adult and nonformal education” (AERO 2016; Kovit 2000, 2017). The active participation and voices of members of these rural and remote communities are vital to enable all activities to run smoothly, continually, and reach the entire population. Then and only then will lifelong learning and a true reading culture become a living reality in Thailand.

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Chapter 9

Thai Higher Education: Privatization and Massification



Oliver S. Crocco

Abstract Higher education has played a vital role in Thailand's development, politics, and society. The evolution of Thai higher education reflects the unique qualities of Thai culture while integrating important contributions from the West. From broad issues of enrollment to the specifics of what it is like to attend a Thai university, this chapter provides descriptive and analytical commentary on Thai higher education. It analyzes issues such as the challenges of private universities being treated more like competitors than partners to public higher education, how an increased focus on standardization has led to the homogeneity of higher education institutions, and inequality in Thai society resulting from the higher education system. This chapter describes the evolution of higher education in Thailand with a focus on the major trends of privatization and massification beginning in the late 1960s. It then goes on to describe and analyze a spectrum of issues related to Thai higher education such as policies, funding, quality assurance, and university life. Most importantly, this chapter identifies the key challenges facing higher education in Thailand in the future.

Education concerns everyone, and not for a particular period, as a direct duty for a period. It is not so. From birth, one starts to learn. Growing up, one has to learn, up to higher education, as you are pursuing. We call it Udom Sueksa – full or complete education. But once you leave this institution and start working, you have to continue studying. Or you would not survive. Even those with doctoral degrees have to study further. Education is endless.

His Majesty King Bhumibol Adulyadej

April 20th, 1978

King Bhumibol and His Enlightened Approach to Teaching

(Public Relations Department 2011)

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9.1 Introduction

In the late nineteenth century, the visionary reformer King Chulalongkorn the Great (King Rama V, 1853–1910) (Prachoom 1965; Wyatt 1969) sought to implement a modern education system in Thailand. While Western influence affected its origins and some of its current trends like the quality assurance movement, Thai higher education is marked by numerous uniquely Thai qualities and strategic eclecticism. A cogent example of exceptionalism is found in Thailand's long-standing tradition of royalty conferring degrees on university graduates, which the King of Thailand did personally until the 1990s. As a constitutional monarchy in the politically and culturally diverse region of Southeast Asia, Thailand continues to maintain its unique values while embracing Western models of higher education to respond to the enormously complex demands for higher education both within the boundaries of Thailand and in the larger global context.

Various studies illustrate the uniqueness of Thai culture, which influences higher education policy and practice. Hofstede et al. (2010) show that Thailand is largely a collectivist culture, which values loyalty to one's group. In an assessment of Thai values in organizations, Somsak and Yolles (2010) found that Thai values generally include respect, honor, synergy, allegiance, learning, and sensibility. A unique and defining characteristic of Thai culture is the high value placed on relationships (Suntaree 1990; Pimpa 2008; Hofstede et al. 2010) reflected in the term, *wet rice cooperative culture*. It is also a highly stratified society (Akin 1969). Some scholars point to the idea of Thai exceptionalism and highlight the uniqueness of the Thai language, that Thailand was never colonized and that Thailand has had the highest percentage of women CEOs in the world (Fry 2014b). Thai values in conjunction with its unique culture and history gently influence every aspect of higher education (Chetana 2017).

This chapter seeks to describe the evolution of higher education in Thailand with a focus on the major trends of privatization and massification. Additionally, it addresses aspects of Thai higher education such as policies, funding, quality assurance, and university life. Lastly, this chapter analyzes key challenges facing the future of higher education in Thailand and ends with concluding reflections.

9.2 The Evolution of Higher Education in Thailand

According to the Office of the Higher Education Commission (OHEC), the history of higher education in Thailand can be divided into three periods: the Early Modernization Period (1889–1931), the Post-Revolution Period (1932–1949), and the Development Planning Period (1950–present) (OHEC 2014). It is worth highlighting another key shift in Thai higher education with the opening of private higher education options in 1969 followed by massification beginning with the establishment of two open universities in the 1970s and accelerating in the 1990s and 2000s with Rajabhat universities present throughout the Kingdom. For the purpose of this chapter, this is called the Privatization and Massification Period (1969–present).

9.2.1 Early Modernization Period (1889–1931)

King Chulalongkorn the Great (King Rama V), Thailand's celebrated reformer king and modernizer, sought to use higher education to address the multifaceted and growing needs of the Siamese people and society (Wyatt 1969, 1975). A devout Buddhist, King Chulalongkorn, was known as the Royal Buddha ("Phra Putthachow Luang"). His Majesty encouraged higher learning for monks as early as 1887, with an education institution, Mahamakut, opening its doors in 1893. Over a century later in 1997, that institution was chartered as Mahachulalongkornrajavidyalaya University with expanded programs for both ordained Buddhists and laity. This initiative set the stage for further higher education development.

Thailand's first university, Chulalongkorn University, was named in honor of King Chulalongkorn. With humble beginnings as the Royal Pages School founded in 1902, Chulalongkorn University officially became Siam's first university in 1917. During this time, two professional institutions of higher learning were founded to address other needs in Siamese society, including the School of Medicine at Siriraj Hospital in 1888 and the Ministry of Justice Law School in 1897.

9.2.2 Post-Revolution Period (1932–1949)

After the revolution in 1932, higher education expanded its political role in an attempt to promote democracy in light of reformed governmental structures. In 1934, Thammasat University, then called the University of Moral and Political Science, was founded by Dr. Pridi Banomyong (Kroekkiat and Puey 2016). This was followed in 1943 by the founding of Mahidol University (formerly the University of the Medical Sciences), Kasetsart University (formerly the Agricultural University), and Silpakorn University (formerly the Fine Arts University.) These universities were largely created to help train competent personnel in Bangkok, Thailand's political, economic, and educational center.

9.2.3 Development Planning Period (1950–1969)

This phase of higher education development saw the establishment of the National Economic Board (NEB) in 1950 (later to become the National Economic Development Board in 1959 and the National Economic and Social Development Board in 1972). Prime Minister Sarit Thanarat recognized the importance of higher education for economic and social development (Thak 2007). The prime minister initiated the spread of higher education outside of Bangkok to other regions, which included the creation of Chiang Mai University (1964) in the North, Khon Kaen University (1966) in the Northeast, and Prince of Songkla University (1967) in the

South. Vocational and technical schools were later converted to universities including King Mongkut's Institute of Technology (1971), which now has several campuses throughout Thailand.

9.2.4 Privatization and Massification Period (1969–Present)

A turning point in the history of higher education in Thailand came in 1969 with the Royal Proclamation of the Private College Act (1969), which made private higher education a legal reality. The first six private institutions given college status were Bangkok College, Pattana College, Dhurakij Pundit College, Kirk College, Sripatum College, and the Thai Chamber of Commerce College. This proclamation came in part as the result of the public sector being unable to meet the growing needs and demands for higher education throughout the nation and in part from mounting pressure for the government to relax its control over higher education. That same year, the Association of Private Higher Education Institutions of Thailand was founded (adopting this name in 1979). Higher education became more organized internally, and in 1972 the Council of University Presidents of Thailand (CUPT) was established.

In 1974, Payap University in Chiang Mai became the first accredited private college outside of greater Bangkok, and in 1984 Payap became the first fully accredited private university. Similarly, Assumption Business Administration College (ABAC) became an accredited college in 1975 and became fully accredited as Assumption University in 1990.

Since the 1990s, immense growth in higher education has occurred in both the number of universities and enrollment of students. When higher education enrollment extends beyond the elite of a nation, this trend is called massification. According to Trow's (2006) framework, massification occurs when the gross enrollment ratio (GER) in higher education is between 15% and 50% of the population of the relevant age group. Thailand reached 15% enrollment in 1982 and reached 50% enrollment in 2010. See Fig. 9.1.

Gender equity in higher education has also dramatically improved. According to the World Bank, women in higher education made up only 3% of students in 1976 but now make up nearly 60% of all students. See Fig. 9.2.

The development of two open universities, Ramkhamhaeng University (1971) and Sukhothai Thammathirat Open University (STOU) (1979), contributed to massification (Amara 1973). Both are open admissions universities available to those with high school degrees of any age to attend. Unlike Ramkhamhaeng which has regular classrooms and courses, STOU is an open distance university "without walls." Students can study via radio, TV, correspondence, and the Internet. While providing far greater access to higher education, these open universities have low graduation rates primarily because students have to be highly motivated and able to work independently to graduate. However, being a graduate of an open university

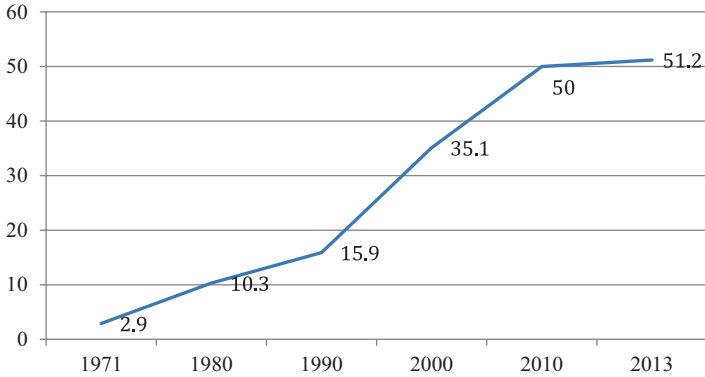


Fig. 9.1 Gross enrollment ratio
 Source: World Bank. 2015. Gross enrollment ratio. Tertiary (ISCED 6 and 7). Total is the total enrollment in tertiary education (ISCED 6 and 7), regardless of age, expressed as a percentage of the total population of the 5-year age group continuing on after leaving secondary school

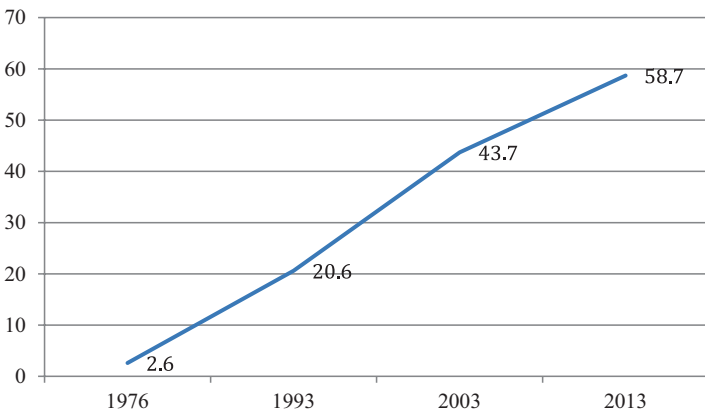


Fig. 9.2 Gross enrollment ratio over time (female)
 Source: World Bank. 2015. Gross female enrollment in tertiary education (ISCED 6 and 7), regardless of age, expressed as a percentage of the total female population of the 5-year age group continuing on from secondary school leaving

does signal to potential employers that graduates have attractive traits related to persistence and perseverance (Spence 1974).

Demand for higher education within the job market has continued to rise in Thailand (Rangel Delgado et al. 2012). To address this demand, many postsecondary institutes were converted to universities. Rajabhat Institutes, previously called *Wittayalai Khru* (วิทยาลัยครู) (teachers colleges) which traditionally emphasized teacher training, became full-fledged universities offering courses and degrees in many fields with the passing of the Rajabhat University Act (2004) (Ruangchai 2001). There are now 38 Rajabhat universities. Rajabhat universities function as

separate legal entities but network together. One expressed goal of the Act is to “exchange personnel and resources.” As part of this process, Rajabhat universities administer doctoral degrees using staff from various Rajabhat and other universities throughout the Kingdom (Neubauer and Prompilai 2016). On November 8, 2015, there was a special graduation ceremony, where Udon Rajabhat University and Sakon Nakhon Rajabhat University in the remote Northeast granted 58 doctoral degrees. Among recipients was Dr. Rosarin Apahung, a primary school math teacher in remote Bueng Kan Province (the nation’s newest 77th province). This important ceremony in which these proud new doctorates received their degrees personally from the Crown Prince certainly reflects the theme of the massification of higher education and how the Rajabhat universities serve those in remote areas. Similarly, Rajamangala Institutes of Technology, which traditionally focused on technological education, were converted to universities in 2003 (OHEC 2013).

Increased access to higher education has led to a rapid expansion of the higher education sector in both number of students and institutions. As one UNESCO report on graduate education in Asia put it, there have been two trends, one of “expanding out” with increased access as well as “expanding up” with the creation of more graduate degree programs to match the increase in demand (UNESCO-UIS 2014). Graduate education has yielded more university faculty resulting in the ratio of instructors to students to decrease from 38:1 to 20:1 in the last 10 years (UNESCO Institute of Statistics as cited by Chaiyuth 2013). While massification has led to increased access to higher education throughout the country, the rate of enrollment growth appears to be slowing down, which is leading to some universities closing departments for financial reasons (Dumrongkiat 2016).

9.2.5 *Classifying Higher Education Institutions*

There is a diversity of institutions considered to be higher education. The Office of Higher Education Commission (OHEC) oversees 157 higher education institutions (OHEC 2016) (see Table 9.1).

There is significant diversity among universities, but many of the Thai government’s initiatives in higher education revolve around the public sector and its nine flagship universities: Chulalongkorn University, Thammasat University, Kasetsart University, Mahidol University, Chiang Mai University, Khon Kaen University, Prince of Songkla University, King Mongkut’s University of Technology Thonburi, and Suranaree University of Technology (Douglass and Hawkins 2017). These nine universities were named national research universities in 2011 by the Higher Education Commission. They are especially valued for their ability to contribute to research and have been given abundant government funding. There are nine Thai universities in the Times Higher Education World University Rankings (2016–2017), with Mahidol at the top, largely due to their research and related citations; however, none of these universities are in the top 500 (*Times Higher Education* 2016). While university ranking systems often offer an inadequate picture of a university, an increased focus on publishing research in international journals certainly increases rankings (Fry 2013).

Table 9.1 Genres of universities in Thailand

Type of university	Total
Limited admission public universities	11
Open admission universities	2
Autonomous universities ^a	21
Private higher education institutions	75
Rajabhat universities	38
Rajamangala Universities of Technology	9
Community College Institute ^b	1
Total	157

Source: OHEC 2016

^aMany of the autonomous universities are also limited admission

^bPreviously there were 20 community colleges which were consolidated into the Community College Institute by the Community College Act (2015)

Thai universities fare much better in terms of the Times Higher Education Asia University Rankings in which 10 Thai institutions are in the top 300. King Mongkut Institute of Technology Ladkrabang (ranked in the 181–190 band), Kasetsart University, and King Mongkut Institute of Technology North Bangkok (251–300 band) just joined this group. In this ranking system, Mahidol is top ranked, no. 97, followed by King Mongkut University of Technology – Thonburi (101–110 band), Chulalongkorn University (151–160 band), Chiang Mai University (171–180 band), Suranaree University of Technology (181–190 band), Khon Kaen University, and Prince of Songkla University (both in the 201–250 band) (The Nation 2017) (see Asia University Rankings (2018)).

Thailand’s performance in these rankings is adversely affected by the nature of Thailand’s university climates. Because of the low salaries of university professors (see 9.3.4), many have to spend time moonlighting or doing extra teaching on weekends. Also for a variety of reasons, writing textbooks (unlike in the USA or Japan) is counted as “research” but such time-consuming work doesn’t count in international rankings. It is also difficult for Thai faculty members to engage in longer-term research which may have important returns. Finally, with Thailand never have been colonized and, thus, Thai scholars with weaker English language skills, it is difficult for many faculty members to publish internationally. Publications in Thai are not recognized in international ranking systems.

Autonomous universities are public universities that have been granted a higher degree of institutional independence by the government. There are currently 23 autonomous universities, the first of which was Suranaree University of Technology (1990) in Korat. Autonomous universities establish their own internal governance and receive funding through block grants from the government instead of a rigid line-item budget. Each university’s council is responsible for its

internal affairs in compliance with OHEC's quality assurance policies. The gradual transition for some public universities into autonomous universities has been thoroughly analyzed by Rattana (2015a, b) and Wasan (2014). Autonomous universities are occasionally viewed with skepticism, but some autonomous universities, like Mahidol, have proven highly successful in producing research (see Chap. 10).

Phuket Community College (PCC) was the first experimental community college founded in 1973 as part of Prince of Songkla University. A lack of demand due to no provision for credit transfer between the college and universities forced PCC to stop accepting students. The decentralization of higher education as the result of the 1997 constitution gave way to the founding of ten community colleges in 2002 with another ten having being added since then (Pattanida and Maki 2009; Tanom 2012). Community colleges have increased access by offering 2-year associate degrees in fields such as community development, local government, agriculture, and business computing. These degrees are low cost, support local development needs, and are suited for working adults. Challenges remain for community colleges, which are experiencing declining enrollment with the rise of universities, and salary disparities of community college graduates as compared to university graduates (Tanom 2012).

One framework for the classification of higher education institutions is the *International Standard Classification of Education* (ISCED) published by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1997 and then again in 2011. According to the ISCED 2011 framework, there are four levels of education: ISCED level 5 (short-cycle tertiary education), ISCED 6 (bachelor's degree or equivalent), ISCED level 7 (master's degree or equivalent; the UIS data combines ISCED 6 and 7), and ISCED level 8 (doctoral degree or equivalent). According to this framework, enrollment in higher education in Thailand can be classified as in Table 9.2.

There are discrepancies in reporting on numbers of enrollments and number of higher education institutions, and numbers have continued to increase. According to OHEC (2016), total enrollment in higher education institutions was 2,076,074 in 2011, peaked to 2,139,922 in 2013, and leveled off to 2,079,315 in 2015, representing a 62% increase over that short period. While OHEC (2016) cites the total number of higher education institutions as 157, according to Thailand's Office of Education Council (OEC) as cited by Chaiyuth (2013), there are as many as 190 public universities and 109 private higher education institutions. This is likely because the OEC includes other genres of higher education institutions and those

Table 9.2 Enrollment in higher education

	1999	2004	2009	2013
ISCED 5	430,570	383,580	357,283	306,907
ISCED 6 and 7	1,381,802	1,860,149	2,043,267	2,075,427
ISCED 8	1724	7724	16,712	22,775

Source: UIS

not under the Ministry of Education. For example, there are postsecondary health colleges under the Ministry of Public Health.

9.2.6 Other Genres of Higher Education Institutions

In addition to higher education under OHEC, there are other postsecondary institutions under various ministries and units of the Thai government. Under the Ministry of Defense, institutions include the Chulachomkhalao Royal Military Academy established in 1887, the Royal Thai Naval Academy established in 1898, and the Phramongkutkloa College of Medicine, designed to be a medical cadet school, which was established in 1975.

Additionally, the National Defense College was established in 1955 whose alumni include Privy Council President and former Prime Minister Prem Tinsulanonda. Originally this special college was for Thai government officials in different ministries considered to have leadership potential. Participants would take leave for 6 months to join the college. A major benefit was the valuable networking that this made possible among civil servants across ministries. Later the program was expanded to include leaders from the private sector and now even includes influential expatriates.

The Ministry of Culture supports a variety of postsecondary institutions including the Bunditpatanasilpa Institute which oversees education in dance, music, and arts to support national identity and preserve cultural diversity. There are also colleges specifically devoted to dramatic arts and fine arts. In addition to the autonomous Mahachulalongkornrajavidyalaya University and Mahamakut Buddhist University, there are over 400 postsecondary Buddhist colleges throughout the nation for training and general education in Buddhism under the Office of National Buddhism.

Under the Ministry of Public Health, the Praboromarajchanok Institute for Health Workforce Development runs 29 nursing colleges, seven colleges of public health, the College of Medical and Health Technology, the College of Public Health Administration, and the College of Thai Traditional and Alternative Medicines. Even the Ministry of Tourism and Sports has physical education colleges and sports schools to support its work.

There is also the international independent university, the Asian Institute of Technology (AIT), a genre of its own and sometimes referred to as the “MIT of Asia.” It grew out of the SEAMEO Graduate School of Engineering, founded in 1959. It became AIT in 1967. Its faculty come from around the world, and its students are primarily from the Asia-Pacific region, with around 30% being Thai. Its funding comes from multiple sources such as an annual subsidy from the Thai MOE, tuition, member nation contributions, gifts/donations, and various external grants. In the most recent U-Multirank, it was number four in the world in terms of internationalization.

9.3 Policies, Funding, and Quality Assurance of Higher Education

9.3.1 Organization

Major reform to the organization, structure, and purpose of higher education began with the first 15-year Higher Education Plan (1990–2004). The plan was largely stifled due to the Asian Financial Crisis in 1997 but reform was reenergized with the passing of the National Education Act (NEA) in 1999. The NEA was enacted largely in response to the economic and social crises facing Thai society and emphasized unity of policy, decentralization of education management, student-centered learning, quality assurance, and professional development of educators. The NEA continues to be a guiding document for higher education policy.

In 2003, the Ministry of Education Regulatory Act merged the Ministry of University Affairs with the Ministry of Education to become the new Office of the Higher Education Commission (OHEC), becoming one of five other commissions in the newly restructured Ministry of Education (OHEC 2013). The rationale for this merger was to improve the articulation between basic and higher education and to ensure better coordination, for example, in planning for the training of new teachers. OHEC oversees private and public higher education institutions as well as community colleges. Supplementary professional training institutes are overseen by specific ministries such as tourism, defense, culture, agriculture, and public health. Interestingly, currently there are discussions related to the desirability of returning to the pre-2003 structure with separate ministries for higher and basic education as is common in many other countries. Universities are not particularly happy being under the Ministry of Education.

The mandates of OHEC include policy formulation, resource allocation, research coordination, institution organization, and evaluation. The organizational structure of OHEC includes the Bureau of General Administration, Bureau of Policy and Planning, Bureau of Community College Administration, Bureau of Cooperation and Promotion, Bureau of Standards and Evaluation, Bureau of International Cooperation Strategy, Bureau of Student Development, and Bureau of Personnel Administration and Development.

According to OHEC (2013), the role of higher education is to foster economic development, promote peace in the region, and preserve Thai culture and values. Universities should reflect the “multifaceted and multicultural nature of a society” (OHEC 2013, p. 14). There are four key goals for higher education mandated by OHEC, namely, to produce graduates, conduct research, provide academic services to society, and preserve culture. These mandates embody the purpose of higher education in Thailand, and universities are responsible to fulfill these missions.

To accomplish these mandates and support university personnel, the University Personnel Act (UPA) was passed in 2004 and revised again in 2008. This piece of

legislation seeks to develop university faculty and staff and promote quality, especially with reference to ethics. One of the main goals of the UPA is to decentralize authority and empower universities to create their own procedures related to management, academic tenure, and recruitment of faculty and staff (OHEC 2011). Similarly, the Administration of Higher Education Institution Internal Affairs Act (2007) granted authority to public institutions to regulate their finances and internal affairs. The Second 15-Year Long Range Plan on Higher Education (2008–2022) furthers staff development initiatives to include scholarships for attaining higher degrees (OHEC 2011). There are also attempts at better staff exchange and degree recognition both within Thailand and internationally. In February 2016, a draft of the new Human Management in Higher Education Act (2016) was introduced, which would keep university faculty and staff accountable to standards of research and effectiveness, including penalties as high as dismissal (Royal Thai Government 2016). Still, it is unclear how these various goals are being implemented and monitored.

There have been many organizational challenges facing higher education, the most detrimental being continual high-level leadership changes. Amidst a tumultuous political context, the Ministry of Education has seen 20 different education ministers in the last 17 years (Chularat 2014) (see [Appendix I](#)). Changes in leadership have led to higher education policy lacking cohesion (Krissanapong 2001). Rattana (2015a, b) also elucidates the culture of borrowing prevalent in Thai higher education policy and practice that is synchronous with the “sociologic” of the Kingdom, which has led to policymakers selectively deciding which international policies to implement and which to reject.

9.3.2 Business Sector Involvement in Higher Education

As part of the trend of massification, the business sector in Thailand has made inroads in higher education. Some private universities have been founded by corporations, which allow them to educate their students with knowledge and skills needed to support their particular business needs (Bundit 2016). These corporate universities have appeal to prospective students by offering lucrative employment opportunities to many of their graduates. Examples of this business sector involvement include CP ALL Public Company Limited, established by Thailand’s largest business conglomerate, the Charoen Pokphand Group, which founded the Panyapiwat Institute of Management (<http://www.pim.ac.th/>) becoming fully accredited to offer Bachelor and Master degrees in 2007. Nation University in Lampang Province, formally Yonok University, was founded in 1988 by Dr. Nirund Jivasantikarnin and the American-Thai Foundation. Nation Multimedia Group purchased Yonok, and it is now run as a pilot campus of Nation University in Bang Na, Bangkok (<http://www.nation.ac.th/>). PTT-Group (formally the Petroleum Authority of Thailand, Thailand’s state-owned oil and gas company) established the

Vidyasirimedhi Institute of Science and Technology (VISTEC). Fully funded by PTT-Group (<http://www.vistec.ac.th/>), VISTEC promotes research and development in the sciences. The Thai-Nichi Institute of Technology in Bangkok was founded by the Technology Promotion Association (Thailand-Japan) and serves the needs of Japanese companies. The Thai-Nichi Institute of Technology guarantees employment upon graduation, with particular focus on Thai-Japanese companies. Additionally, business sector involvement in higher education can be seen in Thailand's Thai Union Frozen Products (TUF) awarding 100 million THB to Mahidol University to create a R&D database (*The Nation*, 16 December 2014c). Even the Central Group, which owns Central Department Stores in Thailand, has played with the idea of starting an institution of higher education. Other universities with links to the business sector include Dusit Thani College founded for training in tourism by the Dusit Thani Group and Shinawatra University (see Chap. 24). In addition to these corporate universities, there are also corporation-university partnerships such as the Chemical Engineering Practice School (<http://www.chepts-kmutt.com>), which is a partnership between King Mongkut's University of Technology Thonburi (KMUT Thonburi) and industrial sponsors such as Siam Cement Group (SCG), PTT, and Thai Oil Public Co., Ltd. to offer a 2-year master's degree in chemical engineering.

In many ways, this trend shows a deeper issue facing higher education in Thailand, i.e., the commercialization of higher education, which is covered extensively by Mounier and Phasina (2010) (see Chap. 10). This larger issue has led to corruption within the system. For example, selling of degrees was found at E-sarn University in Khon Kaen, which was soon shut down (Jakkrapan 2013). Cases of corruption have led to more rigid control by the government with quality assurance measures.

9.3.3 *Going Beyond Commercialization*

Though the commercialization trend in higher education is certainly a reality, there are encouraging counter trends. Mahidol University, for example, has given priority to developing an outstanding College of Music which offers degrees at all levels and has over 1000 students. It is considered Southeast Asia's leading music school (College of Music 2017). In 2013, it hired an outstanding Western musician, Dr. Kyle R. Fyr, who now chairs its Department of Musicology, is an assistant dean for Academic Affairs, and directs its MA program. In a recent study, a Japanese researcher has found that Thai college students show considerable interest in learning traditional Thai music and appreciate its importance (Takahashi 2017, see Chetana 2017). HRH Princess Maha Chakri Sirindhorn's mastery of traditional Thai music has been an inspiration for many Thai students (The Nation 2015). This contrasts with Japan, where the emphasis is on Western music, to the neglect of traditional Japanese music.

9.3.4 Funding of Higher Education

In recent years, government spending on higher education has increased dramatically. According to the OHEC (2016), public spending on higher education, both private and public (in millions of THB), has increased 62% from 71,053 million THB in 2011 to 115,292 million THB in 2017 (OHEC 2016). See Fig. 9.3.

Public universities receive most of their funding from the government. Each public university has its own governing act in the government structure, which allows its university council to act as a governing body (OHEC 2013). According to OHEC (2011), public universities are allocated budget from the Bureau of the Budget, and public university presidents are given status equivalent to the chief executive officer at the departmental level in the government. According to Suchittra (2009), on average, the Thai government’s share of operation costs of limited admission public universities is around 75–80%.

Table 9.3 shows the 2015 funding for some of Thailand’s major universities, including its nine flagship research universities. This table indicates three patterns: (1) There is great variation in the amount of funding received by these institutions. Mahidol, for example, receives ten times as much funding as Silpakorn or KMUT Thonburi. (2) Regional universities do surprisingly well. Chiang Mai (North), Khon Kaen (Northeast), and Prince of Songkhla (South) are relatively well funded, and (3) having institutional autonomy does not seem to jeopardize state funding in any way.

Medhi (2005) estimates that government subsidies for public universities allow them to charge students half as much as private universities. Private universities are funded almost exclusively from tuition and private donors (i.e., owners, in the case of for-profit private institutions). In a study of 13 private universities, the percent of total income from tuition and fees was more than 75% for 11 of the private universi-

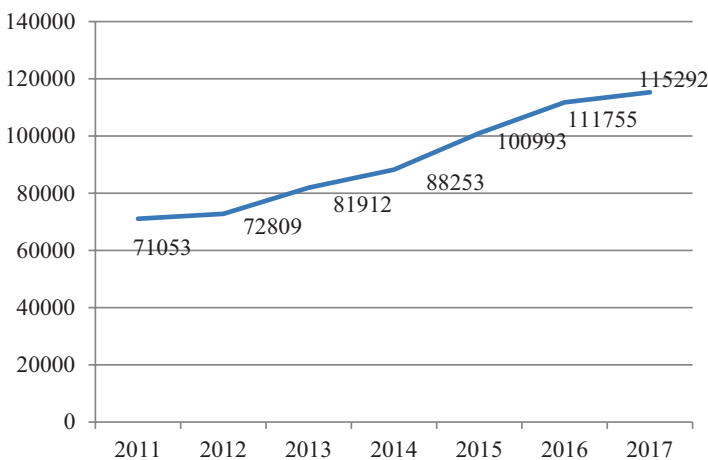


Fig. 9.3 Public expenditure in millions of THB

Table 9.3 2015 Government funding of some leading Thai universities (in millions of THB)

Name of institution	Annual government budget (2015)
Mahidol University ^a	13,159.0
Chiang Mai University ^a	5636.4
Chulalongkorn University ^a	5440.6
Prince of Songkhla University ^a	5023.1
Khon Kaen University ^a	4613.8
Kasetsart University ^a	4332.5
Srinakharinwirot University	3461.3
Thammasat University ^a	3299.9
Suranaree University of Technology^a	1844.7
KMUT North Bangkok	1801.7
KMIT Ladkrabang University	1789.4
Silpakorn University	1364.3
KMUT Thonburi^a	1360.8

Note: Universities which have been granted autonomy or had autonomy at their inception are indicated in bold

^aOne of Thailand's nine designated flagship research universities

ties studied (Prachayani 2010). Since many private university students receive government student loans, the cost of private university tuition and fees remains high due to lack of government support for the operation costs of private universities.

According to the Second 15-Year Long Range Plan on Higher Education (OHEC 2011), universities are encouraged to design ways of generating more financial support from the public, parents, and alumni as well as from research and academic services.

However, additional financial support from the public has been minimal, and there is no strong tradition of alumni giving or corporate philanthropy in support of higher education. Until only recently, a higher tax break was given to people when they donated to public universities, but this is not the same for donations to private universities. However, fundraising projects under royal patronage do help generate important additional revenues. The huge plot of royal land granted to Chulalongkorn University enables it to secure substantial discretionary funds through rents collected from private business entities such as the MBK Shopping Mall.

University tuition depends on a student's course of study and whether the student attends a public or private institution (Rangsit University 2014). Tuition and fees also differ depending on whether a student is a Thai national or international student. Table 6.5 shows a sample of the range of student tuition fees for undergraduate Thai nationals at several private and public universities accessed from each university's website (2014–2015) (Table 9.4).

In terms of university costs, faculty salaries tend to be low by Western standards with an average monthly salary of only \$1545 (PPP) (World Salaries 2017). But Thai universities, with low labor costs, have extensive support staff such as secretaries, clerks, and drivers. A major problem in the funding of US higher education is high and rising administrative costs (Campos 2015). This is also an issue in Thailand.

Table 9.4 Undergraduate student tuition

University	Region	Degree (bachelor level)	Tuition (per year, THB)
Public			
Chulalongkorn University	Bangkok	Economics	39,250
Mae Fah Luang University	North	English	40,000
Prince of Songkla University	South	Law	32,000
Rajabhat Chiang Mai	North	English	13,000
Khon Kaen University	Northeast	Education	13,000
Rajamangala University	North	Business Administration	10,000
Private			
Assumption University	Bangkok	Law	106,800
Bangkok University	Bangkok	Accounting	73,200
The Far Eastern University	North	Business Administration	53,000

Source: OHEC (2016)

The excellent College of Music at Mahidol mentioned above currently has a dean, a principal, six associate deans, and 13 assistant deans.

9.3.5 Student Loans

Studying at a Thai university can be expensive when compared to the cost of living. In addition to tuition, there are many other fees involved. Rangsit University, a private university in greater Bangkok, outlines an example of some of the fees as well as the average fees for an academic year and total program of study. See Table 9.5. To make higher education financially viable for students, student loans have often become a necessity.

It is believed that one of the reasons for massification is the introduction of the Student Loan Fund (SLF) in 1996, part of the recovery package in response to the Asian financial crisis. From 1996 to 2006, the SLF lent more than 1.5 trillion THB to over 2.6 million students (Somkit and Areeya 2010). In 2006, the government introduced the Thailand Income Contingent and Allowance Loan (TICAL) scheme, which set out to make higher education even more equitable and accessible. It provided important nuances to the SLF by including elements such as allowances for daily living for economically disadvantaged students. It also allowed graduates to pay back their interest-free loans based on post-graduation income. TICAL was designed to apply to private universities on par with public universities.

Due to a major change in the government in 2006, TICAL was rescinded after only 1 year, and the SLF was reinstated in 2007. While it is helpful in many regards, the SLF has come under continued criticism. Somkit and Areeya (2010) show that the SLF has many weaknesses including low rates of collection and poor disbursement. The SLF has been highly subsidized, which has kept financial burdens for the

Table 9.5 Student fees at Rangsit University

Expense	Cost (in THB)
Application fee	300
Tuition fee (per credit)	3000
Academic service fee (per semester)	10,000
Matriculation fee	300
Health insurance fee (per year)	2600
Health examination fee	500
Student activity fee (per year)	2500
Student ID card	300
Average fees per academic year	165,000
Average total fees for entire 3-year program	480,000

Source: http://www.rsu.ac.th/ric/Ad_tuition.html

lowest-income graduates from increasing dramatically (Chapman et al. 2010). Kiatanantha (2014) shows that the SLF functions as a mortgage-type loan with a real interest rate of 3% that will likely lead to a loan recovery rate around 40–50%, which is a tremendous financial burden on taxpayers.

A return to an income contingent loan scheme may improve access, especially to the poorest in Thailand, and solve many of the criticisms of the SLF (Kiatanantha 2014). Moving to this kind of scheme comes with key burdens on the government. Firstly, it requires immense “administrative and collection infrastructure” especially related to taxes (Kiatanantha 2014, p. 105). Secondly, the eligibility criterion for students receiving loans must be clarified. In 1996 when the SLF began, eligibility was determined by a family income of 120,000 THB per year. This more than doubled to 300,000 THB in 1997 but then was cut down to 150,000 THB in 1999 (Ziderman 2003). There is increasing political pressure to expand the eligibility criterion to a higher family income, which greatly widens the target groups but also creates heavier burdens for the government. Ziderman (2009), however, is unsure if this move would truly increase access for the most economically disadvantaged, and he questions the validity of family income as the sole method for loan eligibility. Ziderman (2002) recommends converting loans for upper secondary students to grants and regulating repayment conditions to keep the repayment burden low, thus avoiding default. Ultimately, the issues of student loans and inequality are vital for comprehensive human capital formation in Thailand (Jimenez et al. 2013).

9.3.6 *Standardization and Quality Assurance in Higher Education*

Quality assurance practices have been implemented to ensure and improve quality in higher education. There are both self-assessment reports compiled by each university and external quality assessments conducted by the Office for National Education Standards and Quality Assessment (ONESQA). ONESQA is a public

institution established in 2000 as part of the NEA responsible for external quality assessment in conjunction with OHEC.

In 2009, the Ministry of Education announced the Thai Qualifications Framework for Higher Education (TQF). Adopted from similar frameworks in the United Kingdom and Australia, the TQF assesses programs and learning across five domains: knowledge, numerical analysis and communication/IT skills, ethics and morality, cognitive skills, and interpersonal skills and responsibility (Paralee et al. 2015). Part of the TQF system is to ensure quality of key elements in higher education such as credits and degrees. It includes in-depth reports filed by the university with evidence on key performance indicators. Site visits with presentations by university administrators to quality assurance auditors are also a component of TQF quality assessment.

Although quality assurance has allowed for the development of well-designed programs, there are also many criticisms of Thailand's current quality assurance methods. Rattana (2013) conducted 80 in-depth interviews, spent 3 months working with ONESQA, and wrote her doctoral dissertation on quality assurance in higher education in Thailand. She notes that while administrators tend to be favorable to these measures, many academics doubt the link between quality education and the quality assurance assessments. The system is also faulted for its excessive paperwork. Academics interviewed expressed doubt whether quality assurance forms are even used genuinely to improve practice (Rattana 2013). To make matters worse, standards and key performance indicators have changed nearly every year leading to frustration with the system (Kongkiti et al. 2011). The reality seems to be that recent attempts to use regulation to increase academic quality have led to higher education as a whole becoming more regulation-oriented instead of development oriented (see Chap. 10).

Many private university administrators have complained about an uneven playing field since the promulgation of the Private Higher Education Act (2003; 2007). Assessments of quality as a basis for certification and accreditation of programs and institutions have been carried out differently for public institutions, each of which operates under its own act of parliament, while private institutions are authorized and controlled as a group. It appears from conversations with university personnel that recent procedural changes made by OHEC have eased the situation by convincing quality assessment personnel that the same standards should be applied to all. Suspected infringements are being investigated impartially, and corrective actions are being undertaken.

9.3.7 Impact of Higher Education on Political Life

Higher education in Thailand has had major significance in the political landscape. It was at Thammasat University in October 1973 where students protested against the authoritarian rule of the military government of Prime Minister Thanom Kittikachorn. Between 200,000 and 500,000 students protested at Thammasat

demanding the release of prisoners charged with promulgating a call for a new constitution and on behalf of students expelled for their political positions (Prizzia and Narong 1974; Wyatt 2003). This led to a 3-day violent crackdown followed by victory of student/people power and the King asking the military dictators to leave the country. Then former Thammasat University Rector and Privy Counselor Dr. Sanya Dharmasakti became an interim prime minister to begin 3 years of an open and vibrant democracy.

Again in 1976, students protested at Thammasat University primarily because of the return to Thailand of the former military dictator Thanom, which brought about a severe crackdown and military coup on October 6 in which some students were “lynched, burned alive, and beaten” (Wyatt 2003, p. 292).

Higher education continues to be of political significance today. Recent examples include students and academics protesting the amnesty bill of 2013, including a group of 5000 lecturers and students from Chulalongkorn University (University World News, 7 November 2013). Students have also played a role in the current government. Borwornsak Uwanno, chairman of the Constitution Drafting Committee (CDC), called on groups of university students to share their ideas on the country’s new constitution (*The Nation*, 21 December 2014a). Academics such as Thammasat University’s Attasit Pankaew advocated for more participation of the public in the drafting of the most recent constitution (*The Nation*, 19 December 2014). Groups of students continue to protest peacefully against the military coup of May 2014, but there are serious violations of academic freedom (Arnold and Apisra 2014, Subhatra 2006). Unfortunately, new laws established by the National Legislative Assembly (NLA) may continue to constrain academic freedom (*The Economist*, 28 March 2015).

9.4 University Life

9.4.1 Admissions

Before 1961, universities ran their own entrance examinations and admission processes. With an increasing number of applicants applying to multiple universities, it was becoming expensive and time-consuming for students to apply. This led to collaborative admissions initiatives between universities like Kasetsart and Chulalongkorn, but it was not until 1973 that the Office of the National Education Commission handed over this major responsibility to the Ministry of University Affairs. In 1999, the Ministry of University Affairs created a process of university admissions where students were ranked according to an admissions score. This score initially was comprised of a student’s GPA from upper secondary school, which accounted for 10% of a student’s admissions score, and subject tests which accounted for the remaining 90% of a student’s score. Later, the Commission on Higher Education established the Central University Admissions System (CUAS) in 2004, which was launched in 2006.

The CUAS is required for students applying to public universities and consists of four components: the Ordinary National Education Test (O-NET), the grade point average (GPA), the General Aptitude Test (GAT), and the Professional Aptitude Test (PAT). The PAT is made up of seven specialized tests including mathematics, science, engineering, and languages. The weight of the O-NET and GPA is 20% and 30%, respectively, for all applicants. The weight of the GAT and PAT, however, depends on the faculty to which the student applies. For example, a student applying to study pharmacy will have the GAT weighted at only 10%, while the PAT science test is weighted at 40%. In another case, students applying to study other languages can either have the weight of the GAT at 50% with no PAT test, or 30% along with a specific language PAT test counting for the other 20% (Association of University Presidents of Thailand 2010). Unlike the admission process to universities in the USA where students select a major once accepted into a university, students in Thailand apply to specific field, or faculty, at a university. In this system, admissions to a university like Chulalongkorn in a competitive field such as medicine or engineering are significantly more difficult than in a field like physical education. Thus, Thai students are sometimes strategic and apply for a field in which they do not have much real interest but as a way to enter a prestigious highly competitive institution such as Chulalongkorn or Mahidol.

The O-NET, which replaced traditional long-standing entrance examinations, is administered by the National Institute of Educational Testing Service (NIETS) and is part of a greater coalition to reform education. However, the O-NET has been a focus of continued controversy. In 2012, critics pointed out apparently illegitimate questions on the test that asked what you should do with a sexual urge and about the so-called defining characteristic of transvestite behavior (Chularat and Wannapa 2012). The GAT measures general reasoning ability and English language proficiency, while the PAT is a subject-specific test. The O-NET can only be taken once, but the GAT and the PAT can be taken up to three times a year. In 2014, NIETS launched the University National Education Test (U-NET) to test university graduates in their Thai and English language communication skills, critical thinking, and technology skills. Channarong Pornrungrroj, director of the ONESQA, has argued that there is a need for a standardized test for university graduates (Inathep 2014). The U-NET, however, was met with criticism from university students and faculty members, which included several large-scale social media campaigns against the test (Fredrickson 2014).

According to Prasart Suebka, chairman of the Council of University Presidents of Thailand (CUPT), over 131,000 students applied to universities using the CUAS between May 10 and 17, 2015, which is up from 99,000 in 2014 (*The Bangkok Post*, 19 May 2015). This, however, is about 13,000 more than the 118,528 seats available. If students do not participate in the CUAS or are not accepted for admission, they may attain direct admission to a specific university. For direct admission, the university will have an entrance examination based on specific subjects depending on the university faculty to which the student is applying in addition to the aforementioned standardized tests. According to Varaporn (2006), around 45% of students achieve admission through direct admission. This occurs largely because

regional universities like Chiang Mai University and Khon Kaen University have a quota system to ensure 50–60% of students come from those particular regions (Varaporn 2006). Despite going through repeated reforms, current CUPT president, Udom Kachintorn has announced that there will be a new admissions system introduced in 2018 (Aramnet 2016; CUPT 2016).

9.4.2 Student Life

A Thai university campus looks like any other universities around the world while also maintaining its uniquely Thai characteristics and values (Mulder 1997; Theerasak 2002; Suchart 1973; Varaporn et al. 1996). The faculty (e.g., economics, nursing, arts) to which a student belongs plays a significant role in the academic and personal lives of university students. University teachers, or *achans* in Thai, are highly respected. Instructors in a student's faculty assume responsibility *in loco parentis* as in American higher education in the eighteenth and nineteenth centuries (Lucas 2006).

Thai higher education requires all undergraduate students (both at public and private universities) to wear a uniform. Women wear black skirts and white or light purple dress shirts. The dress shirts have special buttons and pins with the insignia of the university. Similarly, men wear black slacks, light white dress shirts, and ties with university insignia. Both men and women wear belts with university insignia as well. Students in professional programs (such as student nurses) have special uniforms related to their fields, as well as the regular university uniform.

Most students embrace wearing their university uniform and feel that it gives them a sense of community and pride within their particular university and in the larger society. In a study of over 1200 university students in greater Bangkok, 94% thought uniforms were “necessary,” and 70% thought they should wear uniforms every day (Matichon Online, 17 September 2013). Students wearing their uniforms sometimes receive discounts at local markets and on public transportation. Still, some students do not like uniforms and have protested having to wear them (Fernquest 2013a).

In Thailand, a collectivist society according to Hofstede et al. (2010), university students rarely study alone. Unlike the Lamont Library at Harvard College where hundreds of students individually study quietly in a single room, in Thailand, groups gather to study together in dorms, libraries, and academic buildings throughout campus, especially during exam periods. Varaporn et al. (1996) highlight these unique cultural influences on the campus atmosphere and culture of Kasetsart University.

At the beginning of the year, upperclassmen lead first year students through initiation rites called SOTUS (seniority, order, tradition, unity, and spirit). During SOTUS, first year students within each faculty of the university wear name tags, learn songs, and participate in games and activities. SOTUS, which has roots in

military practice, first began at Kasetsart University in 1953 and has come under criticism including one student who likened his experience to hazing (Nattha 2014). As with hazing in other countries, some SOTUS events, particularly unsupervised and unsanctioned ones, have been humiliating to participants, and some accidental deaths have led to demands that universities bring these practices to a halt. Official pronouncements from the government and from universities about these initiation practices, and an official date to end them each year, are routine (Chularat 2015).

Ratanasiripong and Rodriguez (2011) note that many Thai students suffer from mental and physical issues while studying at university and that universities can promote wellness of students through educational programs and student activities. In response to the growing need for mental health services in light of Thailand's recent history, counseling services are becoming increasingly widespread (Arunya et al. 2012). Crocco and Wakeman (2014) also note that the promotion of cocurricular programs such as student activities, residential life programs, and student leadership programs on Thai university campuses are being used to build community and facilitate academic success. Despite any stress associated with performance and university life in general, Thai students remain abundantly happy (Nyamkhuu 2014). In fact, perhaps the most exceptional part of Thai higher education is the visible happiness on the faces of most Thai university students (see Fig. 9.4). Whether groups of students are eating lunch, walking through campus, or waiting outside class for an exam, it is more common than not to see smiles and hear laughter.



Fig. 9.4 Happy university students in uniform

Source: Courtesy of Payap University

9.4.3 Graduation

Graduation from university has tremendous significance in Thai society. For many years, the King of Thailand himself presided over the graduation ceremony of every public university and personally conferred the diplomas to each graduate. This practice began with King Prajadhipok (Rama VII), 1933–1941, and continued with King Bhumibol until the 1990s. Royalty still preside at all graduation ceremonies of public universities. For example, HRH Crown Prince Vajiralongkorn conferred degrees to graduates of Rajabhat Universities and Sukhothai Thammathirat Open University. HRH Princess Sirindhorn presides over the graduation at the Asian Institute of Technology (AIT), the major selective public universities such as Chulalongkorn, and a joint ceremony in Bangkok for all the Rajamangala universities (see Fig. 9.5). Normally for private universities a member of the Privy Council confers the diplomas as well. Graduates give places of high honor in their homes to their pictures that show them receiving their degrees from a member of the royal family.

Preparations for commencement ceremonies involve 3 days of practice including a full dress rehearsal usually on the day before the ceremony. Some students wake up as early as 4:00 AM to put on makeup, take pictures, and prepare for graduation. Extended families are expected to fill the grounds around the commencement venues. Students wear gowns arranged according to their faculty. It is a gendered event with men and women wearing different outfits underneath their robes. The Higher Education Commission recently gave limited permission for universities to allow graduates to wear clothes they feel best represents their gender identity (*The Nation*, 16 August 2012). Some universities have also dispensed with the designations “Mr.,” “Miss,” or “Mrs.” as graduates’ names are called and in printed programs.



Fig. 9.5 HRH Princess Maha Chakri Sirindhorn hands out degrees at Chulalongkorn University graduation ceremony (Photo courtesy of HRH and Chulalongkorn University)

9.4.4 *Academic Integrity in Higher Education*

Plagiarism and cheating have been persistent issues on Thai university campuses. In a study of 106 undergraduates at a Thai university, 47% of respondents confessed that they knew people who had cheated on tests (Young 2013). Young (2013) believes cheating and plagiarism in Thai higher education are linked to an implicit no-fail policy found on Thai campuses and reflect the extent to which corruption is countenanced in Thai society. The use of closed book examinations probably also contributes to the problem.

On one level, plagiarism may be linked to the Thai value of respect for expert authority and not wanting to go beyond that. On another level, cheating in general may be understood as an attempt to avoid losing face, which is a common characteristic of collectivist cultures (Hofstede et al. 2010). Trends of cheating raise questions as to what students see as the purpose of their university education and to what extent coursework and learning are viewed as a necessary evil to arrive at graduation with solid social connections. The Thai value of respect for hierarchy, which is linked to privilege and status, is also seen in cafeterias and canteens where students and teachers rarely sit together. This may also be the result of Thailand's high level of power distance – the acceptance of inequality and social stratification within Thai society (Akin 1969).

Lecturers also face challenges related to academic integrity. In addition to the aforementioned quality assurance paperwork and general focus on documentation, there is no formal tenure process for professors. On the other hand, everyone is tenured informally as very few staff or faculty members in Thai universities are fired unless they commit a major malfeasance, particularly one that brings public discredit to the institution. Thai labor laws reinforce the employment protections upon which faculty and staff rely. This brings up controversies of accountability, dead-weight, and promotions. Some universities have processes similar to tenure, but they remain largely a formality and are not effectively implemented.

Though Thailand is generally a very free and open country, academic freedom has also been an issue in higher education. In 2010, a message went out from the Higher Education Commission asking universities for cooperation in controlling anti-government student protests (*The Bangkok Post*, 11 August 2010). Additionally, Midnight University, a free public “university” but functioning more as a database of scholarly articles, was shut down as a result of protests of the coup in 2006 (*The Nation*, 2 October 2006).

Most academic freedom issues relate to Thailand's Article 112 of the Penal Code, which states, “Whoever, defames, insults or threatens the King, the Queen, the Heir-apparent or the Regent, shall be punished with imprisonment of three to fifteen years.” In a panel discussion at Thammasat University, Sulak Sivaraksa was accused of lèse-majesté based on reflections allegedly involving aspersions on King Naresuan who was King of Ayutthaya 400 years ago (*The Nation*, 16 December 2014b). Phiphat Krachaechan, a history lecturer at Thammasat and one of the orga-

nizers of the event, said that this interpretation of Article 112 is hurtful to the study of Thai history (*Pratchatai*, 25 December 2014). David Streckfuss (2011) has written extensively on the use of Article 112 for political purposes in his book, *Truth on Trial in Thailand: Defamation, Treason and Lèse-Majesté*, and has called Thailand a “defamation regime.” There can also be harsh penalties for defaming individuals. After the military coup in May 2014, constraints on freedom of expression have become even more stringent.

Many questions regarding academic freedom remain. To what extent do universities, professors, and students have the freedom to express themselves freely? What fields of study may be off-limits in the Thai higher education context and not just those related to the monarchy? How, if at all, has business sector involvement limited universities in their research?

9.4.5 Thai Higher Education in the Global Context

Massification is occurring throughout Southeast Asia (Pan Maoyuan and Luo Dan 2008) and higher education is increasingly more important for the development of the region. The Association of Southeast Asian Nations (ASEAN) Education Ministers and the South East Asian Ministers of Education Organization (SEAMEO) see higher education as vital to success in human resource development in Southeast Asia. Ponsan and Pimpa (2011) argue that globalization has led to more creativity among Thai university students.

As part of the ASEAN Socio-Cultural Community, the ASEAN University Network (AUN) made up of 30 universities in the region was established to work on five core tasks: “(1) Youth Mobility, (2) Academic Collaboration, (3) Standards, Mechanisms, Systems and Policies of Higher Education Collaboration, (4) Courses and Programmes Development and (5) Regional and Global Policy Platforms” (ASEAN University Network 2014). Of the current 30 universities in the AUN, Thailand is represented by Chulalongkorn University, Mahidol University, Chiang Mai University, Prince of Songkla University, and Burapha University.

OHEC seeks to support global higher education initiatives in the region such as the AUN, including the SEAMEO Regional Centre for Higher Education and Development (SEAMEO RIHED) and University Mobility in Asia and the Pacific (UMAP) while learning from the experience of the EU and the Bologna Process.

There have been calls by prominent scholars in higher education such as Gerald Fry to have an ASEAN university and an ASEAN development corps, similar to the Peace Corps or AmeriCorps programs in the USA (Fry 2014a, c). SEAMEO has also initiated Regional Integration of Higher Education in Southeast Asia (OHEC 2011), which aims to allow for more collaboration and mobility in higher education in the region.

9.5 The Future of Higher Education in Thailand

9.5.1 *Private Higher Education: Competitor, Not Partner*

Private higher education in Thailand continues to face immense and complex challenges. In many ways, private universities are treated more as competitors to public universities than as partners in the education and development of a nation (Welch 2011). Traditionally, the value of private higher education is in its ability to offer specific emphases, different admissions standards, and the ability to reach students for whom public education is not an option as the result of geographic or capacity constraints (Levy 1986; Prachayani 2010a). However, the government seems to treat private higher education as a legal necessity with which to compete and does not see itself as responsible for supporting private higher education. This contrasts with countries like Japan that have consistently helped fund the operating costs of private higher education institutions leading to greatly improved access and quality of higher education in Japan (Huang 2012).

There are serious disparities between public and private universities in funding and administration. According to Chaiyuth (2013), “The dominating role of the public universities comes from their long-term quality reputation and cheaper tuition fees compared to private universities” (p. 279). While OHEC claims that the Sixth National Higher Education Development Plan in 1991 began offering minimal financial support for private higher education, private universities receive no government funding to cover basic operations and are still held to the strict standards of the Private Higher Education Act (Prachayani 2010).

The Private Higher Education Institution Act of 2003, revised again in 2007, gave increased authority to private universities in Thailand, but regulation of private universities is still seen as excessively restrictive (Prachayani 2010). OHEC recognizes that private universities claim the close monitoring is rigorous and oppressive, but OHEC sees the strict monitoring of private universities as important to gain “public confidence” (OHEC 2013, p. 24). Private universities are required to consult OHEC regarding major amendments such as expenditure plans and financial donations as well as trivial issues such as gowns and pins (OHEC 2011).

While the Second Private Higher Education Act (2007) appears to provide more autonomy in general, it is a one-size-fits-all piece of legislation that does not recognize the unique character of some private higher education institutions. As challenges facing private higher education mount, enrollment in private institutions has decreased to only 15% of the total higher education enrollment, one of the lowest rates of enrollment in Southeast Asia (UNESCO Institute of Statistics as cited by Chaiyuth 2013).

Another challenge is the seeming favorable behavior by the government toward public over private higher education institutions. One cogent example of this is the purchase of several journal databases available in the Interuniversity Network Project (UNINET) (<http://www.uni.net.th/UniNet/index.php>) by the Ministry of

Education a decade ago. However, despite years of appeal, these databases are still only available on a limited basis to students of private universities.

Another challenge private higher education confronts in Thailand is the negative stereotypes about students at private universities. Many assume students at private universities did not do well on the entrance examination or their parents are rich enough to afford more costly private education. Thus, there is a mindset that students who study at private universities are “rich and lazy.”

Other initiatives established by OHEC include the University Business Incubator (UBI) project established in 2004, which connects universities with industry in line with the government’s development plan. UBI, while available in 53 public universities, is only available in three private universities (OHEC 2011).

For higher education to increase its quality, it should treat private universities as partners in terms of funding and policy and not see them skeptically as competitors. Policymakers must listen to the concerns of private university administrators and students and become aware of how inequitable policy hurts the overall human resource development of the nation.

9.5.2 The Homogenization of Higher Education

With increasing standardization, higher education is disempowered from being flexible and able to address more specific needs in diverse communities. Traditionally, primarily as a result of Thailand not having been colonized, there was impressive diversity among Thai universities. Kasetsart was more USA-oriented, while Chulalongkorn had strong royal traditions mirroring the British tradition, and Thammasat had remnants of French influence. While many universities were founded in Thailand with specific foci, the increasing homogenization of higher education is evident. For higher education in Thailand to be successful, it needs continued decentralization and ability to customize and contextualize its curricula and activities to respond to diverse regional and local needs.

Private higher education is effective often in its ability to customize its programs and execute in an autonomous way. Private universities offer the chance for more specialization and character. Recent trends in higher education in Thailand imply that an increased orientation toward regulation has limited private higher education in many ways. This increasing emphasis on regulation displaces emphasis on development and access and in many ways takes away the unique advantages of private higher education. Attempts to promote degree recognition and a credit transfer system have contributed to the homogenization of higher education in Thailand. On the other hand, public universities have both greater legal freedom and resources to innovate and extemporize but have tended to respond to stakeholders’ preferences rather than to follow their instincts to open new academic frontiers. The commercialization of higher education is as rampant in public universities as in private ones. A wider variety of universities would allow universities throughout Thailand to develop unique niches to be relevant and attractive in the higher education landscape.

9.5.3 *Inequality in Higher Education*

While Thailand has been able to expand access to higher education dramatically in the last 20 years, there remains a serious issue of inequality in Thai society perpetuated by the higher education system. The most prestigious government universities have become extremely competitive. The move toward standardized admissions and testing has allowed wealthier students to thrive with expensive tutoring (Fernquest 2013b) (see Chap. 25). Additionally, since the top public universities are highly subsidized by the government, wealthy students who are accepted pay far less than a student unable to get in has to pay at a private university. When the elite monopolize the spots in the choicest universities, the opportunities for social integration and upward social mobility are actually hindered at government expense.

For Thai higher education to move forward in accomplishing the goals of OHEC, regions throughout the country will need more high-quality universities in proportion to their populations (Matchon 2018a). While Rajabhat and Rajamangala universities have helped with the spread of higher education throughout the Kingdom, 27% (46) of all universities are located in Bangkok which has 14% of the nation's population, whereas only 10% (18) are located in the Northern region which makes up 18% of the population, and 19% (32) are located in the Northeast region with 29% of Thailand's population (National Statistical Office, Thailand 2010). While access to university is widespread, most of the high-quality universities are in Bangkok. Increasing the quality of universities in regions like the North, Northeast, and South will allow more equitable higher education.

9.6 Conclusion: Final Reflections

Higher education in Thailand has played an important role in the nation's development. From unifying the nation through a shared vision to expanding access and quality, higher education has worked toward positive growth and change. The government has become increasingly inclusive of diverse ethnic groups, diverse religious groups, and the private sector. There has been more emphasis on research, developing university personnel, and increasing resources for higher education institutions. Higher education has been able to maintain its uniquely Thai characteristics while embracing what it can learn from other nations (Ma Rhea 2017). The physical infrastructure of Thai higher education has dramatically improved with attractive campuses such as the new world-class Assumption campus at Bang Na, the prestigious Chulalongkorn University campus, NIDA, and the AIT campus. While impressive progress has been made, particularly in terms of massification and improved infrastructures, a lack of policy cohesion, a tumultuous political situation, serious issues of quality, and inequities in the system threaten to prevent Thai higher education from reaching its full potential and goals.

Many questions remain. To what extent are Thai universities' development in innovative and dynamic ways limited by legal and administrative constraints (Suraphon and Kritin 2016)? Will the government differentiate between productive nonprofit private higher education institutions and for-profit diploma mills and provide more support for the former? With the massification of higher education, how serious is the "diploma disease" and to what extent are people judged by the prestige of the degrees they hold rather than what they can do or know? (Prompilai and Jones 2016) (see Chap. 19).

How will Thai universities respond to the changing needs of the workforce? Are students adequately prepared to find jobs in a rapidly changing economy and global/AEC era (Suthichai 2018)? Petch Osathanugrah, President of Bangkok University, and Anitka Limpiananchai, Marketing Director of Jobs DB, argue that Thai universities must become more digital to respond to these challenges (Matichon 2018b). Though Thailand's overall unemployment rate is one of the world's lowest, a recent survey of the Ministry of Labor (May 2018) indicates that the largest portion of the unemployed are recent college graduates numbering 170,000 (Rattapong 2018). How will higher education in Thailand support a Thai identity that is increasingly pluralistic? Will academic freedom increase or continue to decrease? Will Thai universities enhance their R&D related to Thailand's escaping the "middle-income trap" and becoming a more competitive economy? These questions and more are worthy of both conceptual and empirical research as Thailand seeks to invest more effectively in human resource development, the key to its long-term future. With regard to the issue of R&D, in August 2018, Prime Minister Prayut ordered the formation of a new Ministry of Higher Education, Research and Development to promote innovation and R&D. This will result in the merger of the OHEC and the Ministry of Science and Technology (Chatrudee 2018; Dumrongkiat 2018).

As higher education continues to expand, a new period in Thai higher education is emerging, that of universal higher education. How stakeholders will work together to ensure high-quality higher education for the nation is yet to be seen. The future seems bright, however, as Thai culture, identity, and values continue to act as a firm foundation for the further development of higher education.

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Chapter 10

Quality and Autonomous Universities: Policy Promises and the Paradox of Leadership



Rattana Lao

Abstract This chapter addresses one of the most contested and celebrated reforms in Thai higher education: the transformation of public universities to become autonomous, which means that the state lessens its role in terms of finance, human resources and administrative management to allow each higher institution greater flexibility and freedom. While its advocates have celebrated this reform as the only alternative for Thai higher education, this chapter analyzes the complexity of translating these policy promises into practical realities. Particularly, it focuses on the paradoxical role of university leadership to make decisions regarding administrative and financial arrangements as well as setting policy directions. The chapter critiques the overt obsession with international rankings and quality assessment as detrimental factors which adversely affect the long-term quality of institutions and lead to dissatisfaction within the academic profession.

10.1 Introduction

The idea of transforming Thai universities to be “autonomous” is considered to be one of the most celebrated and contested policies in the history of Thai higher education (Rattana 2015). On the one hand, the Thai state, the Ministry of University Affairs which later became the Office of Higher Education Commission, joined hands with academic leaders to call for the need for greater autonomy. Given that most established universities in Thailand were founded by the Thai state and their development has been influenced by bureaucratic norms and regulations, being autonomous means that these institutions will have greater flexibility and independence in terms of their administrative systems, financial management, and human resource management and development. The autonomous university policy, therefore, has been considered by its advocates as a kind of panacea to address all

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Table 10.1 Autonomous universities in Thailand (1990–2015)

Year	Autonomous universities
1990	Suranaree University of Technology
1992	Walailuck University
1997	Mahachulalongkornrajavidyalaya University Mahamongkut Rajavidyala University
1998	Mae Fah Luang University King Mongkut's University of Technology Thonburi
2007	Mahidol University King Mongkut's University of Technology North Bangkok
2008	Burapha University Thaksin University Chulalongkorn University Chiang Mai University King Mongkut's Institute of Technology Ladkrabang
2010	University of Phayao
2012	Princess Galyani Vadhana Institute of Music
2015	Kasetsart University Khon Kaen University Suan Dusit University Thammasat University

Source: <http://www.mua.go.th/university.html>

ills in Thai higher education. On the other hand, the policy continues to be criticized by many academics, students, and the general media. The main arguments against autonomous universities include overt commercialization, concerns about equitable educational services, and questions about how it may influence academic freedom.

Making universities autonomous as a policy has been a subject of contested debate for more than five decades in Thailand. The last 20 years has witnessed a proliferation of autonomous universities here. There are two types of autonomous universities. First, there are three universities which were initially established as autonomous from the very beginning, namely, Suranaree University of Technology, Mae Fah Luang University, and Walailuck University. Second, there are those public universities which transferred from state control to the autonomous status. It has indeed now become the reality of Thai higher education, a powerful force that cannot be stopped.

As of 2017, there are at least 23 institutions that have become autonomous, while Silapakorn, Srinakarintarawit, Prince of Songkla, and Suan Sunandha Rajabhat universities are in the legal process of obtaining autonomy. Table 10.1 provides a list of current autonomous universities in Thailand:

It is important to note that being “autonomous” is not a sufficient condition to ensure quality education. The university autonomy legal acts *promise* “efficiency,” “effectiveness,” and “flexibility” in contrast with supposedly draconian centralized

state control. There is almost an unwritten assumption that the transformation will automatically yield positive outcomes. Practically, political, economic, and cultural factors continue to impede the possibilities for progress. Since autonomous universities give greater administrative and decision-making power to rectors and administrators, the direction of the universities depends largely on a few powerful individuals. The interviews I have done suggest that this has led to the abuse of administrative power and the creation of a patronage system and centralization of control within these autonomous universities. Economically, uneven resources available to each university create different levels of constraints for institutional development. Meanwhile, the obsession over international rankings has casted doubts on the meaning of what constitutes quality education. Policy papers, interviews, and official records are reviewed to illustrate what being autonomous has *promised* to be and juxtapose that with potential paradoxes in delivering quality higher education for all.

10.2 The Promises of Being Autonomous

This section focuses on the conceptual rationales for what autonomous universities were expected to achieve. To understand why policy elites and university administrators advocate for the autonomous university policy, it is important to map out the landscape of Thai higher education and how closely linked to state control and regulation it has been for decades.

Historically speaking, the Thai university was created by the state for its own purposes. Chulalongkorn, the very first university, was founded in 1917 with the intention to prepare educated elites to staff a modernizing bureaucracy. Meanwhile, Thammasat University was later created in 1934 in order to train individuals to become responsible and active citizens in the post-absolutist and new democratic era. Other universities were created with direct links to ministerial needs and human resource planning. For example, Mahidol University was associated with the Ministry of Public Health, and Kasetsart University was linked to the Ministry of Agriculture. Therefore, the management and structure of universities resemble that of a formal bureaucracy. Each university receives their operating budget from the Budget Bureau and therefore needs to follow strict regulations and requirements similar to other ministries or departments. Atagi (1998, p. 10) describes the rigidity of the budgetary process. Each year, the university has to estimate their expected annual expenditures and submit their annual budget to the Office of Higher Education Commission (formerly the Ministry of University Affairs). Subsequently, OHEC will propose the budget to the Budget Bureau, which is responsible for the national budget of all state departments and ministries. The final stage is to submit the annual budget to the Cabinet. While the remaining budget not used for any year must be returned to the Budget Bureau, each budget has been itemized with specific details and cannot be used in unassigned areas. In this scenario, universities do not have the flexibility or freedom to manage their income in order to improve the university and its efficiency.

At the same time, university lecturers traditionally were considered to be part of the civil service system. Therefore, the salary scale for university lecturers are set by the Office of Civil Service Commission, similarly to other official bureaucrats. These bureaucratic bottlenecks such as itemized budgets, procurement regulations, and limitations in salary policy were perceived as major challenges to the development of modern universities. In addition to these bureaucratic structures, the state has also inserted its political interference in other areas. Politicians and political leaders have intervened in university management by becoming rectors or politically meddling with the personnel appointments in the universities. Altogether, the proponents of the autonomous university policy argued these factors seriously impede and constrain the development of Thai higher education as indicated in the following quotation:

We believed that the bureaucratic system limited the flexibility and freedom of the universities. There was a lot of political insertion and therefore the universities could not follow its mission and vision. Then another problem is the low salary because the salary scale is linked with the civil service scale. It was very hard to find quality individuals to become academics because the incentive was less appealing than that of the private sector. When the universities face with these obstacles, they could not freely manage themselves and become excellent. (Interview with Former Secretary General of OHEC, 11th of August, 2010)

It must be highlighted that the push for greater university autonomy can be considered as resulting from a strong policy coalition among leading bureaucrats in the OHEC/Ministry of Education as well as executive members of public universities. Professor Charas Suwanwela, former rector of Chulalongkorn University and a prominent thinker in the Thai higher education sector, has been advocating for greater institutional autonomy. Under strict state control and regulation, it is difficult for universities to excel. Accordingly he argues:

Especially under the slow and ineffective bureaucratic system, it is necessary to find a more appropriate system of administration for universities...Although each university has its own governing act, but the entire structure is still dominated by centralized management. All universities are still under the very same regulations. These include all the academic requirements, human resources and financial management, which are set by the Ministry of the University Affairs/Office of Higher Education Commission. Every university and every department has to follow the same thing. It is unbalance. Some say it is too strict, some say it is too lenient. It is ineffective and inefficient management (Charas 2008, pp. 28–29)

The interview above illustrates the frustration of the state-directive and centralized system. Given the status quo, it is undeniable that the prescription to reform Thai university system is to lessen state control in higher education and delegate greater institutional autonomy to the universities. Against such a bureaucratic system and structure, the concept of autonomous university has been proposed as a liberating way out. The new system is expected to “unlock” the hurdles and bottlenecks of the bureaucracy. According to Krissanapong Kirtikara (2004), the former president of King Mongkut’s University of Technology Thonburi and one of the major advocates of the autonomous university policy, the features include:

University autonomy means that the state allows autonomous universities to manage their own three major internal affairs, namely, academic matters (academic programs, university structures), personnel matters (personnel system, recruitment, remuneration, benefits), and finance and budgets (budget management, procurement system). The state can direct, supervise, audit and evaluate autonomous universities (p. 38)

Becoming autonomous does not mean that the state does not provide financial support to universities. That is a common misunderstanding. Rather, there are changes in the way the budget is allocated and monitored. To overcome the budgetary bottlenecks and rigidities, autonomous university policy means that block grants rather than line-item budgets are the norm. The nature of a block grant is quite different from the line-item budget. In this new budgeting process, the state provides the total expenditures for the universities without directing where or how the funds are to be spent. Therefore, the university will have greater autonomy to manage their own resources to meet their own special needs. They can allocate the budgets according to the university's own policies and priorities. In a recent interview with a long-standing advocate of autonomy and academic administrator, the concept of block grants is carefully explained:

When we proposed the budget to the Budget Bureau, we still have to itemize the expenditures. Say, how many chairs and tables we need this year. However, when the budget is allocated to us, it is allocated in a lump sum or in the block grant. They give us the total amount that we can spend each year. Then, we can decide how to spend it. If we don't need the chairs, of course we can use it for other items. This gives room for us to decide what is most needed for the university. (Interview of former President of KMUTT, 22nd December, 2014)

Since the autonomous policy concept was introduced long ago in 1964 and later reiterated in 1990 under the First Long Range Plan of Higher Education, Thailand has witnessed the creation of new types of universities under the autonomous principle as noted earlier.

10.3 The Paradox of Leadership

The previous section has shown that there is a policy consensus among leading policy elites in Thailand. The debate has been framed in such a way that the bureaucracy and its structure are viewed as inherent problems. Conceptually, being legally autonomous promises greater efficiency and effectiveness in the financing of the university, curriculum design, and overall management. However, changing the legal status of the university from a state-own public university to become autonomous does not directly or necessarily translate to becoming a better performing or a better quality higher education institution. After many decades of public universities being subject to rigid bureaucratic regulations and centralized decision-making, there remains the legacy of bureaucratic norms that are hard to overcome expeditiously. This is why decades ago international scholars such as Siffin (1966) and Riggs (1966) called Thailand a bureaucratic polity. Individuals living and working in the public universities have been accustomed to the directive regulations and mentality, so much so that it takes different factors, including leadership, continuation, and strategic planning to facilitate successful transition to a quite different new kind of system.

While legal transformation might unlock various regulations and rules, how each institution uses this new legal “flexibility” to achieve its purposes requires more innovative ways to govern, direct, and implement change. Three factors are discussed below to illustrate the challenges facing the promise of creating quality autonomous universities. First, the quality of the leadership and its vision play a monumental role in determining the direction of universities. On the contrary, there is a potential pitfall related to the greater empowerment of university executives. Issues such as a patronage system, abuse of power, and corruption are pertinent challenges to quality, accountability, and transparency of autonomous universities. Second, there is the issue of uneven resources among institutions (see Chap. 9, Table 9.4). While far-sighted leadership teams will be able to address the issue of uneven institutional resources in a way that benefits academic quality, most universities choose the easier option of expanding more courses resulting in the commercialization of higher education. Third, it is undeniable that all institutions are driven toward improving their institutional ranking as indicators of success. A narrow-minded objective of higher education reform can jeopardize the overall quality and well-being of the institutions and their members such as students and academics.

Professor Charas Suwanwela (2008) argues: “For an autonomous university to work successfully, it needs leadership” (p. 264). Interviews with university administrators revealed consensus that institutions with strong and dedicated teams of leaders, who cement a foundation, direction, and vision for the university promise to perform better than those without such dynamic leadership. Under the Autonomous University Act, university councils have greater autonomy and authority – they will become the most powerful governing body of the higher education institutions. The rector will hold the highest executive power within each institution based on its own governing act. The roles of the university council are expected to be paramount in key institutional matters such as the issues of financial management, curriculum design, and human resource development. Instead of asking the Office of Higher Education Commission’s permission and approval, the university council will oversee the internal management and direction of the university. They need to define the formulation of strategy, policymaking, supervision, and accountability. Based on interviews with key actors at King Mongkut’s University of Technology Thonburi (KMUTT), the first public university which was transformed to become autonomous, the issue of quality leadership has been singled out as one of the most important aspects of their institutional experience.

There is enormous reliance on the role of university council and rectors to ensure the quality of the institutions – however, there are few mechanisms in place to ensure the accountability and quality of such bodies. Dr. Kamjorn Kittiyakavee, Permanent Secretary of the Ministry of Education, stated in a broadcast interview:

The most worrying aspect of autonomous university is that the university council is the most powerful governing body of that university. *If the university council has the accountability in term of management, then the university has a hope.* However, if there is problem of governance, it will create a *deadlock*. The council is the highest institution without checks and balances (Broadcast interview, 22 March, 2015).

The italicized words demonstrate the changing role of the Thai state and its repositioning itself in university affairs. It implies not only the retreat in terms of responsibility but also the elusive hope for the possibility of good governance that it is now up to the university itself to ensure quality leadership. The legal autonomy, which empowers university councils and rectors to manage, rests on the assumption of decentralization of power, increased institutional participation, and institutional empowerment. There is a strong expectation that the university council is committed to provide institutional vision, policy direction, and overall quality management. The process of selecting members of the university council is questionable regarding its accountability and quality. University rectors and administrators are those who select members of university councils, while the university council has to endorse and approve the selection of the rectors. Some view the close-linked relationship between the university council and the rectors as an essential factor for cohesive teamwork. It also creates a vicious circle of patron-client relationship instead of providing a system of genuine checks and balances. Over the years, there have been cases questioning the transparency and accountability of the process. For example, powerful individuals try to make changes in the rectorship selection process to ensure their appointment or university councils take side with the rector over the conflicts within the university (*Thai Rath* 2015). In some cases, university councils have been overly lenient in dealing with corruption in use of public funds. The recent scandal of King Mongkut's Institute of Technology Ladkrabang fraud is a case in point (*Daily News* 2015). Despite high expectation, the current role of university councils is limited to be a stamp of approval rather than being an active provider of vision and leadership, which can provide important checks and balances.

The importance of leadership in autonomous universities has to be closely examined and understood in relationship to the issue of resources: how to earn institutional income as well as how to utilize budgets and funds. Each university (with or without becoming autonomous) is endowed with unequal resources, economically, and academically. There is a huge disparity in the annual budgets from the Budget Bureau. Each university has different sources of income. It includes donations, tuition fees, university services, returns on investments, or fees from their possessions or special assets. For example, Chulalongkorn has special advantages through its extensive royal land assets. Mahidol University has several hospitals under its operation. The table below illustrates the budget and income disparity among selected autonomous universities. Four of the five universities listed are generating more than 50% of their income by themselves (Table 10.2).

Table 10.2 Annual budget of selected autonomous universities (Million Baht)

	Chulalongkorn	Chiang Mai	KMUTT	Mahidol	Suranaree
Budget bureau	5443	5638	1361	13,240	1849
Additional income	5743	8044	1880	35,071	320
Total	11,736	13,683	3241	48,312	2170

Source: Budget Bureau (2014).

Although the state continues to be the major provider of many university's annual budgets, the Budget Bureau will negotiate with each university for greater cost sharing. According to a budget analyst at the Ministry of Education:

The executives will have to set their own expenditures, while they will also have to be more responsible in terms of income generating. There will be more cost sharing between the state and the university. The Budget Bureau will no longer be responsible for 100% of all university expenditures. (Interview, Budget Analyst at the Ministry of Education, 18th of December, 2014)

Under the new financial arrangements, each autonomous university has to be more responsible for their own income. The most common strategy to increase income is to increase tuition fees. Protests have occurred across campuses prior and after the transformation of universities concerning the potential hikes of tuition fees. Based on an official report of Chulalongkorn University, the tuition fee for science-related faculties was around 16,000 Baht in 2005 and it is now around 21,000 baht per semester. As for social science faculties, it is reported that the tuition fee was around 12,000 baht a semester in 2005 and it is now 17,000 baht a semester (Chulalongkorn University 2016). Similarly, there is an increase in tuition fees at Burapha University. Prior to becoming autonomous, the tuition fee for social science subjects was around 7000 baht per semester. It is now approximately 14,000 baht a semester (Thaipublica 2012). A longitudinal analysis of students' tuition fees across all autonomous universities is necessary. It will provide useful information for the public and for the state to curtail tuition fees in order to ensure equitable access to higher education in autonomous universities. As things currently stand, students' voices and concerns are not only not the priority but ignored.

The need for increasing income has led many universities also to push faculties to create and open more short courses, international programs, and graduate studies. Thailand now has around 1000 international programs (see Chap. 11). The commercialization of many universities comes at the expense of the overall quality and equity of education (see Bok 2004; Powers and St. John 2017). The academics are burned out from teaching intensively in the evenings and on weekends and have neither incentives nor energy to pursue research and publications. Similar sentiment is resonated by many academics throughout the research community. One academic succinctly encapsulated this phenomenon: "The university wants us to open international programs, even if we told them we are not ready. They say the faculty needs money, the university needs money"(Interview, academic from Thammasat University, 10th December, 2014). Consequently, the autonomous university policy has resulted in the intensification of the commercialization of higher education. Another interview with a policy analyst at the Ministry of Education also expressed concerns about how autonomous university policy has fostered the commercialization of higher education:

But there is a problem of too much autonomy. Some universities are focusing too much for profit maximization at the expense of academic quality. There still needs to be some kind of control and regulations so that universities do not take advantage of these legal loopholes to open new courses and programs that lack quality but just for profits. Many universities keep opening new programs without having been granted the permission or the curriculum has not been approved. Students suffer from this. There needs to be a better checks and balances. (Interview with Budget Analyst at the Ministry of Education, 18th of December, 2014)

The interview above captures the close link between university autonomy and the commercialization of higher education (Bok 2004; Powers and St. John 2017; Stein 2004). Under the new financial management that pushes universities to be more financially independent, they need to find ways to generate extra income. Many universities have taken an easy road by opening new courses and programs. Opening more courses is not the only way universities have used to earn more income. In fact, it is not a sustainable solution. In an interview with a former university rector, it was revealed that the quality and vision of its leader have led to institutional success in restructuring its income and lessening its dependence on the state budget.

It is evident that we have managed to restructure our university income. Traditionally, if the state gives us two baht, we can only earn one baht ourselves. Within eight to ten years, we have managed to receive only one baht from the state and earn two baht by ourselves. We are the only university that can achieve this without a hospital or school. We can do it because we have many projects and we have capacity. (Interview with the former Rector at KMUTT, 5th of January, 2010)

Given that KMUTT does not own hospitals or schools to generate its own income, the executive team had decided early on, even before becoming autonomous, that they will focus on research. KMUTT has encouraged its faculty members to do more research both academic research as well as applied research with the private sector through the creation of a Research, Innovation, and Partnerships Office. The Office acts as the mediator and secretariat for university researchers and potential investors. The main responsibilities include finding and matching researchers and funding agencies as well as providing administrative support. In return, the Office will charge 15% of the total research budget, which becomes the university’s discretionary income (Interview with the former President of KMUTT, 22nd December, 2014). Instead of focusing on creating more courses and programs, KMUTT has decided to take the path of the applied research road as a way to gain greater financial independence. The table below illustrates the increasing share of income generated through research and other academic services (Table 10.3).

Evidently, KMUTT’s income from research and academic services has gradually increased over the years in proportion to the annual budget received from the government. Since KMUTT’s success has depended largely on the quality of its team of executives and policy continuation, the institution has strived to create an institutional structure that will be able to select talented individuals, prepare them for

Table 10.3 Proportional income generation of KMUTT over time

	2009	2010	2011	2012	2013	2014 (expected)	2015 (expected)
Government	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Tuition	0.89	0.86	0.77	0.79	0.74	0.78	0.79
Research	0.83	0.69	1.31	1.00	1.06	1.12	1.12

Source: Harit Sutabutr (2014)

leadership positions, and ensure smooth transitions from one rector or team of administrators to the next. Dr. Harit Sutabutr, the architect of KMUTT's transformation, provided detailed guidelines on the selection criteria and succession plan for the administrative team:

Education system takes a long time to develop and reach its goals. The continuity and collaboration amongst one administrative team to the next therefore is very important. The University Council must find the way to select those with quality to become the rectors, while mitigate the possible contentious and hostile competition in order to ensure collegiality and continuity between different groups (Harit 2014, p. 3).

The case of KMUTT deserves further attention as to why it is possible to instill new norms and structures even though the institution has been under state regulations since its inception. Factors such as leadership, institutional legacy, and policy/academic entrepreneurs are so important that they must be understood in their own context and trajectory. Interviews with various key actors at KMUTT highlight idiosyncratic features of the institution that make it hard, if not impossible, to replicate elsewhere. These include the personal connections between leading executives, similar academic backgrounds of being engineers/scientists, as well as shared policy beliefs in terms of institutional goals and directions. As Varaporn et al. (1996) argue, in the case of Thailand “loyalty to individuals often takes precedence over loyalty to a particular organization” (p. 62). The danger of strong but autocratic leadership in higher education institutions also deserves more attention in its own right and how such administrative character is damaging to foster participatory and distributive decision-making in academic settings.

The Thai state has introduced different mechanisms to act as regulators of “quality” in Thai higher education. At the national level, there are at least three organizations involved in quality policies. First is the Office of Higher Education Commission (OHEC) which is responsible for the Thailand Qualification Framework (TQF), Internal Quality Assessment (IQA), and Education Criteria for Performance Excellence (EdPEX). Second is the Office of Educational Standards and Quality Assessment (ONESQA), which is legally mandated to conduct external quality assessment of all educational institutions once every 5 years in order to follow up and monitor performance. Third is the Office of Public Sector Development Commission (OPDC). The figure below illustrates the current quality regime that is being imposed on Thai higher education institutions (Fig. 10.1).

The rise of quality policies demonstrates Thailand's attempt to move toward a new public management paradigm in regulating its higher education sector through quality indicators. This is especially appealing to those public universities which transformed themselves to become autonomous universities. Rectors, administrators, and university councils use these indicators to indicate their progress and performance. Among all of these quality mechanisms, international rankings are the most influential factor (Downing and Ganotice 2017; Hazelkorn 2017). All of Thailand's leading higher education institutions share in common the aspiration to improve their international rankings. The status of where their institution stands in the international league table has become an equivalent of not only institutional

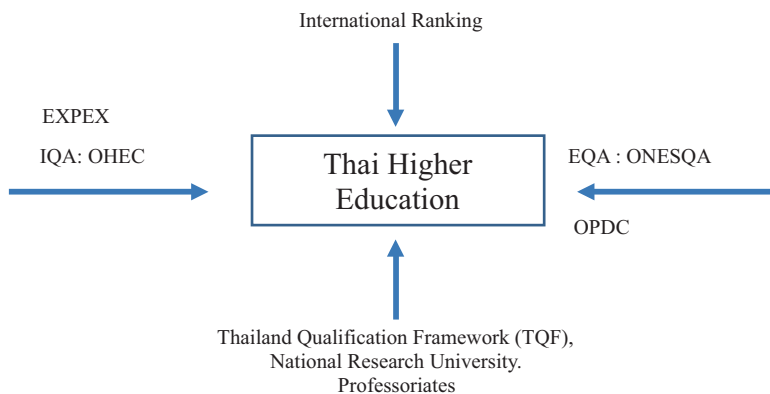


Fig. 10.1 Quality landscape in Thai higher education system (Source: Rattana 2012)

quality but also an indicator of the executives' performance. This is unlike previous years when constructing more buildings and infrastructure was used to indicate the rector's performance. (Interview with academic from Chulalongkorn University, 9th of December, 2014).

Undoubtedly, administrators feel compelled to improve the international rankings of their institutions. There are both carrots and sticks in the game of research performance. On the one hand, universities have begun to provide direct incentives to encourage their academic staff to publish more research. Depending on the level of journals or publishers where they publish, academics may be given financial rewards for such publications. This is a mechanism to incentivize faculty to be more productive. On the other hand, minimum publication requirements have been built into academic contracts and annual performance reviews, depending on the faculty in question. This latter aspect is fundamentally different from the traditional public university system whereby university academics were considered parts of the civil service system and did not have to comply with any performance reviews. Under the traditional system, after a 6-month probationary period, then virtually all faculty gained lifelong tenure.

This carrots and sticks approach is viewed by university administrators a way forward to improve the quality of universities. At face value, this material financial strategy might seem to address the issue of low salaries for academics, and extra income helps to incentivize them to publish more. One academic from a faculty of economics argued: "there are more incentives to push for research, but the organizational culture has not changed. It is not conducive for research work" (Interview, 10th of January, 2011). This organizational culture includes heavy teaching loads, limited grants and funding for research for junior and mid-level staff, and inadequate research time. Institutions need to think of creative ways to improve the research system more systematically and sustainably than simply offering financial rewards for each publication.

Furthermore, universities and funding agencies often limit the research time within the scope of an academic calendar. This is too short to produce any signifi-

cant research work. Good research takes time to follow up and monitor the results. This applies to both scientific, social science, and humanities research. The current research system in Thailand is attempting to respond to the rankings game, while losing sight of the creativity, quality, and relevance of academic work (see Argyris 1980; Sokal and Bricmont 1999). At the same time, the current research and ranking system has encouraged fiercer competition among academics, which result in academic rivalry rather than the creation of a quality academic community and collaboration.

The shared conviction among the state, rectors, and university councils about these various performance indicators has enormous ramifications for the higher education system in general and the quality of the academic profession in particular. Each university is encouraged to introduce different types of QA systems into their institution. This reflects a new form of management and a new mode of control and surveillance without direct control. Through this system, enormous paperwork, manpower, and resources have to be spent to comply with these quality policies. If the overall objective is to promote “efficiency,” “effectiveness,” and “higher rankings” with greater research and publications, the introduction of multiple quality policies is counterproductive, usurping too much academic time and energy. Despite years of voicing dissent through media, social media, and public conferences, academic’s voices, who question the merit, philosophy, and implication of these quality policies, have been regarded simply as “complainers” and whiners. Quality universities depend on quality and dedicated academics and teachers. It is important that their voices be heard and counted. This is a part of participatory policy process to improve the system and create inclusive institutions. One of the policy promises of becoming autonomous rests on the need to create better incentives for more qualified individuals to become academics, creating a collegial, fair, and inclusive working environment. This is not an option, but an absolute necessity.

10.4 Conclusion

For more than five decades, the autonomous university idea is the single most important higher education policy endorsed by the Thai state and academic administrators. These advocates paint the bureaucracy under state control as ossifying, draconian, and deterrent to development. In contrast, the promise of being autonomous is presented as a panacea – the only exit option available for the future of quality higher education in Thailand.

As 23 universities gradually transformed to become autonomous, it is evident that the legal transformation in and of itself is not sufficient to ensure the efficiency, effectiveness, and quality of higher education institutions. Issues such as the transparency and accountability of autonomous universities are worrisome. The tight-knit relationship between members of university councils and rectors, their ambivalent pathway to power, and inertia for checks and balances have casted doubts on the merits of university autonomy. Under autonomous university acts, the

state has liberated these universities from financial rigidity and traditional chain of commands. However, another new form of state apparatus has been formed. In the name of “quality,” a myriad of paperwork, performance reviews, and competitions have been instilled to govern the academy – in hope that quality policies will translate into quality education.

This chapter has illustrated that the current fate of autonomous universities in Thailand is caught between two opposing forces. On the one hand, there is greater pressure for institutions to generate more of their own income in order to be financially independent. This has led to the commercialization of higher education whereby new courses, programs, and universities are mushrooming. Higher tuition fees for students are also resulting. On the other hand, leading universities in Thailand are driven to gain greater institutional recognition at the global and regional levels. All executives express their common, if not narrow-minded, interest to improve international rankings. The current “rankings game” is not necessarily conducive for educational quality and academic freedom. It is short-sighted in terms of its rewards and inadequate in terms of its resources such as research grants and funding to promote long-term quality and sustainable valuable research.

Methodologically, this chapter has focused on the challenges of ensuring the quality of autonomous universities at the macro level. More research is needed, especially detailed in-depth case studies to provide insights into this complex and important issue in Thailand’s higher education sector. Each university is diverse in terms of its origins, endowed with unequal resources, and structured by different cultures and norms. Policymakers should consider carefully what is the next step for Thai higher education. Since the autonomous university idea has been the most important higher education policy proposal for many years and slowly it has been realized, it is important to think ahead of ways in which to promote quality and excellence through participatory and progressive higher education that endorses quality learning, encourages rigorous and relevant scholarship, and fosters a collegial collaborative academic community.

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Chapter 11

The Internationalization of Thai Higher Education over the Decades: Formidable Challenges Remain!



Porntip Kanjananiyot and Chotima Chaitiamwong

Abstract Since 1990 following the formulation of the First 15-Year Long-Range Plan on Higher Education (1990–2004), Thailand’s efforts to internationalize have gradually shown some favorable results, especially in terms of the numbers of international students, programs, and partnerships. This chapter describes the 25-year evolution of internationalization examining factors speeding up or hindering progress; influences of national, regional, and international trends and partners; internationalization links; the rankings race; and quality assurance. The role of OHEC in providing leadership for and facilitation of internationalization is carefully reviewed. Four factors significantly influencing internationalization are examined, namely, Thai education reform, the cultural traditions of Thai educational administration, the development of global education internationalization, and the realization of the ASEAN Economic Community. Several other crucial factors are also discussed such as visionary leadership, engagement of millennials, benchmarking, and *integration*. Much improvement needs to be made in order to realize more in terms of the *quality* dimension – the key to a successful internationalization process. This will in turn ensure that the alignment and integration of policies from a broad framework with consistent elements as well as the maximization of resources available will lead to the collective implementation of the desired goals.

11.1 Background

Higher education internationalization efforts in Thailand have experienced ebbs and flows from the age of *modernization*, with the establishment of the so-called modern universities (Tej 1970), to the current era of *globalization* when higher

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education institutions face an unprecedented wave of international market integration and rapidly accelerating interconnectivity. *Internationalization* is the current process by which many universities are responding to the challenges of globalization and concerns about competitiveness both domestically and internationally. It was not until 1990, however, that the Ministry of University Affairs (MUA) (now known as the Office of the Higher Education Commission (OHEC)) launched its first attempt to promote education internationalization following the formulation of the First 15-Year Long-Range Plan on Higher Education (1990–2004). These internationalization efforts were continued with the Seventh National Higher Education Development Plan (1992–1996) but later delayed by the structural reorganization of government agencies mandated by the National Education Act of 1999. The movement was revived and further fueled by the 2015 inception of the ASEAN Economic Community (AEC) and the national vision of Thailand becoming a regional education hub. International programs, for example, have flourished in recent decades. Almost all higher education institutions, if not all the faculties, have developed international programs either separately or in parallel with existing ones. Partnerships with international institutions are also sought after for collaborative research and exchanges. On the surface, it appears that Thai higher education internationalization is extremely active and seemingly productive. Looking more closely and deeply, however, there are major formidable challenges that remain in the decades ahead.

11.2 The Internationalization of Thai Higher Education: An Overview

Thailand has constantly been developing its education throughout history, particularly since the reign of King Chulalongkorn the Great (October 1, 1868–October 23, 1910), when the Kingdom strived to modernize itself in response to both external and internal pressures and influences (see Chap. 1). Thai educational development has gradually been shaped to become more and more *international*.

11.2.1 The Evolution of the Internationalization of Thai Higher Education

Starting from the First 15-Year Long-Range Plan on Higher Education (1990–2004), the Ministry of University Affairs (MUA), currently the Office of the Higher Education Commission (OHEC) under the Ministry of Education, saw itself as the pioneer in propelling internationalization forward under the Seventh National Higher Education Development Plan (1992–1996), which emphasized internationalization, and then under the Eighth Plan (1997–2001), which added regionalization (Varaporn 2006). Since then, attempts have been made to understand and then develop the internationalization processes that would best fit Thai higher education

institutions (Thailand 2013). Experts from within and outside the Asian region were brought in to offer consultations and develop guidelines.

At the initial stage, the intention was to create mutual understanding of the internationalization of higher education institutions by evaluating the current state and discussing possible avenues for future development. The first step was a National Seminar on the Internationalization of Thai Higher Education held in 1991. At the seminar with international participants from different regions of the world, the European Regional Action Scheme for the Mobility of University Students (ERASMUS) was highlighted (Rattana and Hill 2017). This visionary scheme called for 10% of all European university students to spend a semester of their undergraduate program in another European country.

International speakers provided their perspectives on internationalization/international education as well as some examples of actions taken. Several issues were raised including the definition of internationalization, governments' roles and policies, the sending and receiving aspects of exchanges, and credit transfer challenges.

Thai speakers emphasized the need for increased international cooperation and exchanges, the role of international affairs offices, and the recognition of programs with English as the medium of instruction, as well as the need for sociocultural understanding of partner countries and cooperation with the private sector (Foreign Relations Division, MUA 1991).

The seminar in 1991 inspired the MUA to take further steps. In 1993, the Ministry invited a Fulbright Specialist, Dr. Jack Van de Water, to visit key higher education institutions in Thailand and offer insights on their current level of internationalization with recommendations for next steps. It was the very first time that higher education institutions started systematically reviewing their internationalization efforts. Dr. Van de Water proposed that each university have its own mission statement, clearly specifying its commitment to enhance internationalization. By doing so, the statement would be a good start for universities to think and act accordingly while moving forward toward a common goal.

Another national seminar was organized in 1995 (Foreign Relations Division, MUA 1995), which focused on elements of internationalization such as curriculum, academic staff, and students. Some suggestions from the international experts included the need for institutions to reflect on internationalization as a priority in mission statements, the recruitment of faculty and students, promotion and tenure policies, self-assessment and training for academic staff, and the provision of services for international students enrolled in international education programs.

Thai participants proposed a review of the general education subjects and the development of new courses as well as the development of more area studies. With regard to faculty and students, it was pointed out that universities should be encouraged to offer training for staff to enhance favorable international qualities while creating more interuniversity networks. More importantly, it was agreed that both the MUA and home universities should have a heightened role in ensuring that proper support was given to internationalization efforts. For international students, basic infrastructure, student services, the importance of quality of programs, and mutual understanding were highlighted as key concerns (Foreign Relations Division, MUA 1995).

Later in 1995, the MUA commissioned a group of researchers to study the status of Thai internationalization, focusing on an examination of international programs. The survey (Tong-In et al. 1995), which yielded an 88.7% response rate, revealed that the First 15-Year Long-Range Plan on Higher Education (1990–2004) and the Seventh National Higher Education Plan (1992–1996) inspired universities to make further internationalization efforts. Many new international programs were offered for the first time during this period for several reasons. For public universities, the programs were meant to produce graduates who would work in international affairs-related agencies in Thailand and to heighten the role of faculty members and Thai citizens in world forums. The private universities had a different priority in producing graduates for career opportunities in international organizations and businesses. The study also found that research on Thai studies and area studies was minimal even when other countries were interested in forming educational partnerships with Thai institutions.

It was suggested that mutual understanding of the internationalization of higher education should be stressed to administrators from the national down to the program levels. More attention should be given to area studies and more opportunities for student and staff exchanges should be created. Also, it was recommended that more studies should be done to determine key international components of both regular and international programs.

The MUA also launched projects/activities to work with Thai universities. This included data/information gathering as well as exchange programs. Furthermore, there was an attempt to collect statistics to determine the number of signed memorandums that could be linked with other international activities. The data collection also included identifying the number of international students and international programs available at Thai universities. The fact-based information and profiles enabled the MUA and the higher education community to develop a profile of Thailand's systematic move toward internationalization.

Regionally and internationally, the MUA noted that Thailand was already home to a number of major regional centers and organizations like UNESCO and the SEAMEO Secretariat. The MUA itself has supported the Association of Southeast Asian Institutions of Higher Learning (ASAIHL), a nongovernmental organization established in 1956. It recognized the country's clear commitment to engagement in education internationalization. Building off this already established commitment, the MUA made an effort to increase the presence of several other centers. Among them were the SEAMEO Regional Centre for Higher Education and Development (SEAMEO-RIHED, originally founded in Singapore in 1965 and moved to the MUA in 1993), the Australian Studies Center at Thammasat University (founded in 1994), the ASEAN University Network Secretariat (AUNS founded in 1995), the Thai APEC Study Centre at Thammasat University (founded in 1996), the Center for European Studies at Chulalongkorn University (founded in 1997), and the International Institute for Trade and Development (ITD), a Thai public organization founded in 2001.

Furthermore, the MUA initiated several key activities/programs to promote education cooperation and networking. One was cooperation within the Greater Mekong

Subregion (GMS, comprising Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, and Yunnan Province of China), with a Declaration of the First Informal Meeting of GMS Ministers Responsible for Higher Education (MUA 1998). The ministers agreed to plan for the establishment of a “GMS Higher Education Coordinating Task Force” to be based at SEAMEO-RIHED and assisted by the MUA. Thailand has also been a member of the University Mobility in Asia and the Pacific (UMAP) since 1996 and joined the UMAP Credit Transfer Scheme (UCTS) in order to support increased two-way exchanges.

Additionally, the MUA took another proactive step by launching an education exhibition abroad in cooperation with the Ministry of Commerce. The first exhibition was organized in Vietnam in 1999 and has become a regular event. Similar exhibitions were arranged in China and Myanmar (BICS 2007).

In fact, the MUA fostered some other related projects and movements that became instrumental in supporting internationalization efforts at the ministerial and national levels as well. For example, it sought loans from the Asian Development Bank (ADB) to set up seven centers of excellence to develop graduate programs and fund research in science and technology (Chaiyudh 2010). The project could be regarded as a driving mechanism to increase quality international programs by combining several key elements of internationalization such as joint research, international teaching staff, and cultural learning.

In 1999 before the administrative reform mandated by the 1999 NEA, the MUA announced policies that guided some key issues, especially the provision of international programs, promotion of curriculum development to meet international standards, and academic cooperation with international education institutions (Thienchay 2002). Furthermore, the MUA aimed to have Thailand become a regional education hub, which was driven by the national policy on education formulated by the Office of the National Education Commission (ONEC 2001b).

Following the policies and enforcement of the 1999 National Education Act, universities were encouraged to welcome more international students by strengthening their academic and logistical capabilities along with offering other essential basic information and more courses in English. The introduction of quality assurance led many to pay increased attention to the *quality of internationalization* and the *internationalization of quality* (Porntip 2003).

Also in 1999, under the Thai International Postgraduate Program (TIPP), the Thai government started to offer scholarships to less developed countries through the Department of Technical and Economic Cooperation (DTEC), now known as the Thailand International Cooperation Agency (TICA). The program originally focused on Cambodia, Laos, Myanmar, and Vietnam (CLMV) but was later expanded to 37 countries including six ASEAN members. As courses included in the program reflect the needs of partner countries, the scholarships encouraged Thai institutions to explore other potential disciplines and training to offer. The courses offered then grew to cover a variety of areas such as economics, global warming, food security, the sufficiency economy, and public health (TICA 2014). Host universities like Kasetsart University started to include other programs like Thai language and culture to prepare international students, especially those from the Lao

PDR, to take regular classes, while a few others offered more programs with English as the medium of instruction. Khon Kaen University in the Northeast is active in providing training for TICA scholarship participants from various developing nations. Also Mahasarakham and Naresuan Universities have offered training to students from Laos, Cambodia, Myanmar, and Vietnam. Mahasarakham and Udon Rajabhat Universities have provided in-service teacher training for students from Cambodia and Laos.

At the secondary education level, the MUA and higher education institutions gradually saw increasing demand for international programs from international high schools, whose graduates did not have as many academic choices locally. This enabled a number of such students to remain in Thailand for their university studies rather than study overseas. This was part of the impetus for the establishment of the highly regarded Mahidol University International College (MUIC) in 1986.

Originally, there were only a handful of international schools for families of diplomats and expatriates. The International School Bangkok (ISB) was the first international school established in Thailand in 1951 and was followed by Ruamrudee International School (RIS) and Bangkok Patana School (BPS) 6 years later in 1957. Together, these *big three* monopolized Thailand's international basic education for over 36 years. All of them were located in inner Bangkok, but in the late 1980s, due to increasing land prices and related rents, these schools decided to move their facilities out of the downtown area. A group of parents, however, did not wish to move and founded the New International School of Thailand (NIST) with the endorsement of the United Nations (Wanchaupela 2007) located at the former site of ISB. NIST was met with great success, and that encouraged more schools to be established particularly after the 1999 National Education Act.

The growing number of international schools in Thailand was stimulated by the change of government policy in 1990, which allowed Thai children to enroll in international schools as well as the problem that the 1997 economic crisis made it too costly for many parents to send their students abroad (Wanchaupela 2007). Six decades after the first international school was founded in Thailand, the country is now home to some 176 international schools with 106 in Bangkok and 70 in the provinces (Gaskell 2015; *International Education Directory Thailand 2009*; ISAT 2017; Naphalai 2005). There is a high probability that the schools will be further expanded in the provincial areas particularly in the Northeast where a large number of international expatriates work and where more students from neighboring countries could easily attend. This movement is another driving force for higher education institutions to offer more international programs, aiming at enrolling high school graduates from this increasing large number of international schools.

On the whole, all the initiatives and movements the MUA has launched and taken into consideration reflect its commitments and that of the Thai government to support higher education institutions directly and indirectly. This goal is to create a more desirable international atmosphere within our institutions of higher education. More exchange programs were seen to enrich the wealth of knowledge and experiences for faculty and students both regionally and internationally. Clearly, Thailand's education has moved away from the training of a certain elite group in the early

1990s to a market-driven period starting in the late 1980s when Thai education opened up more to market influences with state encouragement for more institutional self-support (Pad 2013). Presently, market forces remain a dominant factor in Thailand's higher education system and its internationalization.

11.2.2 The Current Situation

According to a 2014 survey done by the Office of the Higher Education Commission (OHEC 2014a) of 52 public and private universities, 97% identified internationalization as part of their mission statements. Some 60% had established an institution-wide internationalization plan with committees or task forces to pursue this particular purpose. Generally, they all consider education internationalization as a means to improve student preparedness for global demands, to respond better to public demands for global competitiveness and talent development, as well as to promote diversity on campuses.

Education internationalization has been integrated into different aspects of campus life in various degrees. The same study by OHEC also found that a large number of institutions have initiatives to internationalize their undergraduate curriculum by requiring students to take courses on global trends and issues as well as other language courses. At the same time, students are encouraged to participate in education abroad programs for credit. The most common programs are internships, study abroad, field study, and research collaboration programs in that respective order. However, these opportunities seem to be limited as they rely heavily on external funding mostly from the government.

On the other hand, international experiences have become crucial factors for faculty recruitment, tenure, promotion, and development. Universities are provided with opportunities to develop their international perspectives and competitiveness particularly relevant to the study of other languages, international curriculum development, and advanced technology (OHEC 2014a). The current composition of faculties at Thai higher education institutions reveals impressive international diversity. In the recent OHEC statistics on human resource in both public and private education institutions, from a total of 54,481 faculty members, the number of those who graduated with their highest degree from abroad stands at 13,122, with most diplomas from the USA (10%), the UK (4%), Australia (2%), and Japan (2%) (OHEC 2014c). In other words, those with international degrees now represent 24% of all faculty members in Thailand. Given Sanderson's (2008) emphasis on internationalization of the faculty, these data are certainly encouraging.

In recent decades, there also has been a sharp rise of international programs offered by Thai higher education institutions. The wave of international programs in Thailand started with private institutions in 1972 when Assumption University offered the Bachelor of Business Administration as the first international program in Thailand (Rattana 2015). The other prominent pioneer program is the SASIN Graduate Institute of Business Administration jointly established by Chulalongkorn

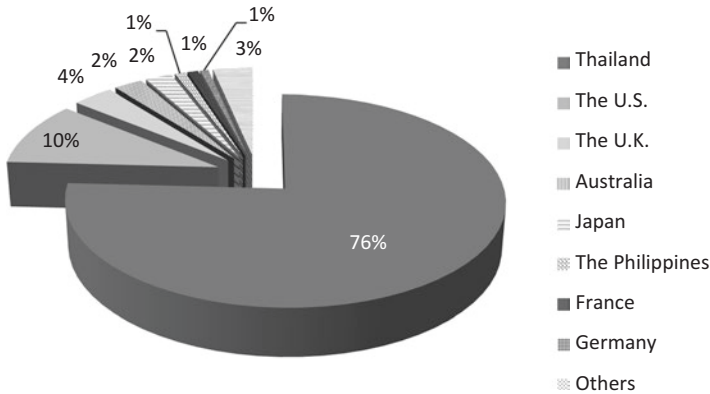


Fig. 11.1 Number of faculty members, classified by countries from where they earned their highest degrees (adapted from statistics by OHEC).

University, the Kellogg School of Management at Northwestern University, and the Wharton School of the University of Pennsylvania in 1987 by modifying and adapting the Kellogg's curriculum and academic regulations (Pembleton 2011; SASIN 2014). However, the wave of international programs was later shifted to be led by public universities with the perception that international programs are a crucial factor for their internationalization (Rattana 2015) (see Fig. 11.1). The number of international programs rose from 425 in 2001 to 981 in 2010, 1017 in 2012, and 1045 in 2013. However, the mushrooming of international programs in Thailand prompted OHEC to make increased efforts to control the quality of these proliferating programs. With such intervention, only 769 international programs were approved by OHEC in 2014 (OHEC 2014b).

Almost all higher education institutions, if not all the faculties, established their international programs either separately or in parallel with the existing ones (see Supaporn 2007). For example, in 2001, there were only 31 institutions that offered international programs at the undergraduate level. A decade later, the number had increased to 335 or by approximately 981% (OHEC 2004 and 2013). The phenomenon is the result of various factors including the reduction of government financial support and the autonomous university policy, which in part drove higher education institutions to seek additional income by opening up international programs. Another factor was Thailand's low fertility rate. Together with local demands, the number of international students studying at Thai institutions grew dramatically from 3339 in 2002 to 20,309 in 2012, the growth mostly coming from China and in business administration programs (BICS 2014a, b, c; OHEC 2013 and 2014c; Tatpicha et al. 2010) (Tables 11.1, 11.2, 11.3 and Figs. 11.2, 11.3).

Partnerships with international institutions are also sought after to start or enhance collaborative research and exchanges. According to a study undertaken by OHEC (2010) on MOUs between Thai higher education institutions and international institutions by the end of 2010, it was found that among 86 public and private

Table 11.1 Number of students (Thai and international) studying in international programs established by Thai higher education institutions for the first semester of academic year 2013

Higher education institution	Bachelor's	Master's	Ph.D.	Total
Public	17,254	4442	2322	24,025
Traditional University	4033	743	612	5388
Rajamangala	1086	–	–	1086
Rajabhat	1909	8	13	1931
Autonomous	9285	3,5691	1632	14,614
Open University	941	–	65	1006
Private	5118	587	46	5751
Universities	4792	501	35	5328
College	326	86	11	423
Total	22,372	5029	2368	29,776

Adapted from statistics by OHEC

Table 11.2 Top five international programs by degree levels and number of students

Bachelor's		Master's		Ph.D.	
Institution	No. of students	Institution	No. of students	Institution	No. of students
Faculty of Science	3595	College of Graduate Study in Management	1447	Faculty of Science	374
Khon Kaen University		Khon Kaen University			
Faculty of Humanities	3212	Faculty of Education	782	Faculty of Science	231
Khon Kaen University		Khon Kaen University			
Faculty of Engineering	3144	College of Local Administration	774	Faculty of Medicine	172
Khon Kaen University		Khon Kaen University			
Mahidol University International College	2955	Faculty of Nursing	684	Graduate School	150
		Khon Kaen University			
Faculty of Education	2155	Faculty of Science	582	Faculty of Agriculture	148
Khon Kaen University		Khon Kaen University			

Adapted from statistics by OHEC on the number of students studying at 49 public and private higher education institutions – first semester of the 2014 academic year) by country of origin

institutions, there were 2720 active MOUs mostly developed by public education institutions. They are reported as being active, but further research would be essential to assess the extent to which they are genuinely active. While Thai students and faculty in general are more interested in studying in Western countries, the data show that educational collaboration at the institutional level focused heavily on

Table 11.3 Number of international students studying at Thai higher education institutions by selected countries of origins (adjusted from statistics by OHEC on international students studying in Thai higher education institutions, Department of Trade Negotiations (DTA) (2014) on Thailand's Trade Partners Ranking (Department of International Trade Promotion 2014) (January–March), and *Times Higher Education World University Ranking 2014–2015*)

Country	No. of students	Major fields of study	Note
<i>Countries with over 100 students studying in Thailand</i>			
China	8444	Business administration	No. 1 trade partner, TIME 50 (2) ^a
Myanmar	1481	Business administration	No. 18 trade partner, ASEAN
Laos	1344	English language	No. 22 trade partner, ASEAN
Vietnam	1290	Business administration	No. 13 trade partner, ASEAN
Cambodia	955	English language	No. 23 trade partner, ASEAN
USA	830	Business administration	No. 3 trade partner, TIMES Top 50 (28)
Korea	601	Business administration	No. 10 trade partner, TIMES Top 50 (1)
India	375	Business administration	No. 15 trade partner
Bangladesh	347	Buddhism	No. 46 trade partner
Japan	345	Business administration	No. 2 trade partner, TIMES Top 50 (1)
Germany	337	Business administration	No. 14 trade partner, TIMES Top 50 (1)
Nepal	332	Business administration	
Indonesia	323	Tropical agriculture	No. 6 trade partner, ASEAN
Bhutan	289	Architecture/business administration	
Taiwan	247	Business administration	No. 12 trade partner
Philippines	196	Business administration	No. 16 trade partner, ASEAN
France	188	Business administration	No. 24 trade partner
Finland	183	International business and Thai culture	
Iran	168	Business administration	
UK	164	English language	No. 19 trade partner, TIMES Top 50 (7)
Malaysia	148	Applied theology	No. 4 trade partner, ASEAN
Nigeria	144	Business administration	No. 34 trade partner
<i>Other ASEAN</i>			
Brunei	1	Business administration	No. 37 trade partner
Singapore	50	Associate medical science/business administration	No. 67 trade partner, TIMES Top 50 (1)

(continued)

Table 11.3 (continued)

Country	No. of students	Major fields of study	Note
<i>Major economic zone</i>			
Australia	64	Business administration	No. 9 trade partner, TIMES Top 50 (2)
New Zealand	11	Business administration	No. 31 trade partner
UAE	4	Oral and maxillofacial surgery	No. 5 trade partner
HK	10	Biology	No. 8 trade partner, TIMES Top 50 (1)
TIMES HE (Times Higher Education World University Ranking)			
Switzerland	25	International business	No. 17 trade partner, TIMES Top 50 (1)
Sweden	79	Business administration	No. 40 trade partner, TIMES Top 50 (1)

The numbers in parentheses are numbers of higher education institutions ranked in the Top 50 by the *Times Higher Education World University Ranking 2014–2015*

Fig. 11.2 US exchange students assisting Thai students in reading (Photo courtesy of the Thailand-United States Educational Foundation)



Asia. Compared with Europe and North America, Asia led with Japan, China, South Korea, Taiwan, and Vietnam accounting for 59% of the share. These MOUs supported over 4305 exchange students as well as staff and 36 joint research projects.

Thai higher education institutions have continued to establish collaborative degree programs with international institutions to supplement and strengthen their internationalization efforts. In general, there are four types of collaborative degree programs approved by Thai higher education institutions: (1) joint degrees in which students earn two different degrees from both the Thai and international partner institutions, (2) dual degrees in which students earn two degrees of different fields from both partner institutions, (3) national degrees in which students study mostly at one of the partner institutions and earn degrees from there, and (4) other arrangements (OHEC 2013) (Fig. 11.4, Tables 11.4, 11.5, 11.6 and 11.7).

The study showed a similar trend with international programs standing out as the most common overall collaborative degree programs between Thai and international higher education institutions. The number has tripled within the span of

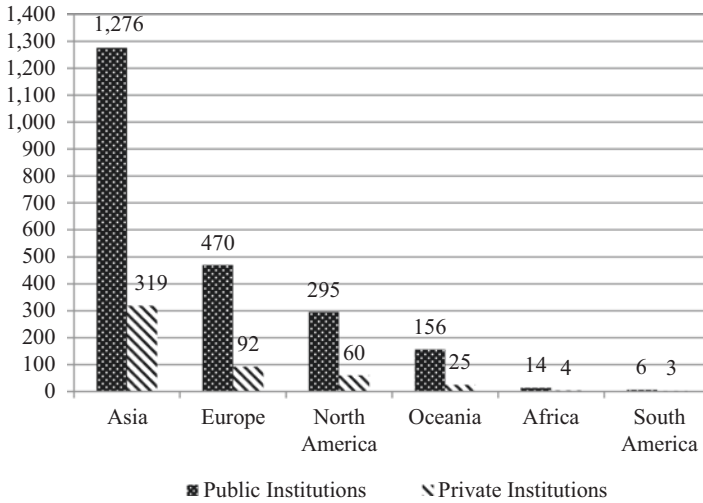


Fig. 11.3 Number of MOUs of Thai higher education institutions classified by region of international institution (adapted from OHEC statistics on academic cooperation between Thai higher education institutions and international institutions 2009–2010)

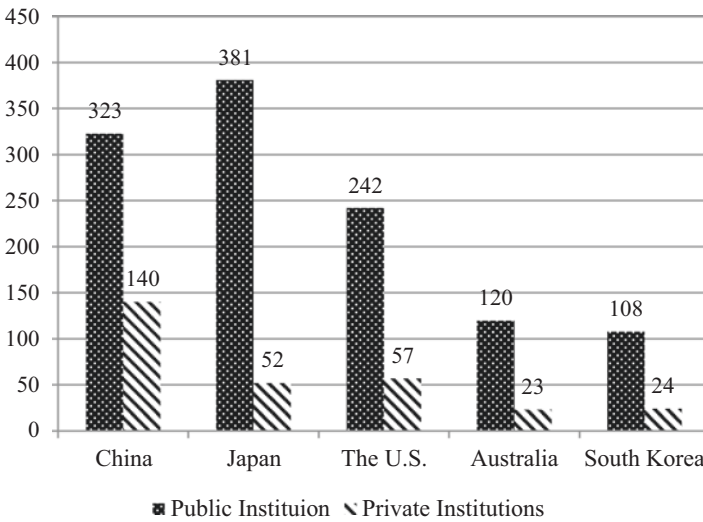


Fig. 11.4 Number of MOUs of Thai higher education institutions classified by country of international institutions (adjusted from OHEC statistics on academic cooperation between Thai higher education institutions and international institutions 2009–2010)

Table 11.4 Number of student and staff exchanges under MOUs classified by top five fields of study (adapted from OHEC statistics on academic cooperation between Thai higher education institutions and international institutions 2009–2010)

No.	Collaborative field of study	Number of exchange students and staff		
		2009	2010	Total
1	Humanities	1902	1890	3792
2	Business administration	632	444	1076
3	Education	258	555	813
4	Health	360	309	669
5	Unspecified	257	280	537

Table 11.5 Number of student and staff exchanges under MOUs classified by top five countries of international institutions

No.	Country	Number of exchange students and staff		
		2009	2010	Total
1	China	2353	2145	4498
2	Japan	482	559	1041
3	Vietnam	282	219	501
4	Laos	115	276	391
5	South Korea	126	217	343

Adapted from OHEC statistics on academic cooperation between Thai higher education institutions and international institutions 2009–2010

Table 11.6 Number of joint research studies under MOUs classified by top five fields of study

No.	Collaborative field of study	Number of joint research studies		
		2009	2010	Total
1	Health	6	4	10
2	Business administration	3	5	8
	Life science	2	6	8
3	Agriculture, forestry, and fishery	4	3	7
4	Education	5	1	6
	Engineering and engineering trade	4	2	6
5	Humanities	4	1	5

Adapted from OHEC statistics on academic cooperation between Thai higher education institutions and international institutions 2009–2010

5 years (2009–2013). Among all programs, humanities and arts as well as the social sciences, business, and law were the dominant fields of collaboration, while China was the most prominent partner country totaling some 35% of all programs available in 2013. However, this figure has been decreasing as the number of collaborations grew with more participation from partner countries like Japan (from none in 2009 to 12 programs in 2013) and the UK (from 6 in 2009 to 16 in 2013) (OHEC 2013). Impressively, the number of collaborative degree programs established by

Table 11.7 Number of joint research studies under MOUs classified by top five countries of international institutions

No.	Country	Number of joint research studies		
		2009	2010	Total
1	Japan	8	10	18
2	USA	3	3	6
3	Laos	4	1	5
4	Australia	2	2	4
5	China	2	1	3
	New Zealand	2	1	3

Adapted from OHEC statistics on academic cooperation between Thai higher education institutions and international institutions 2009–2010

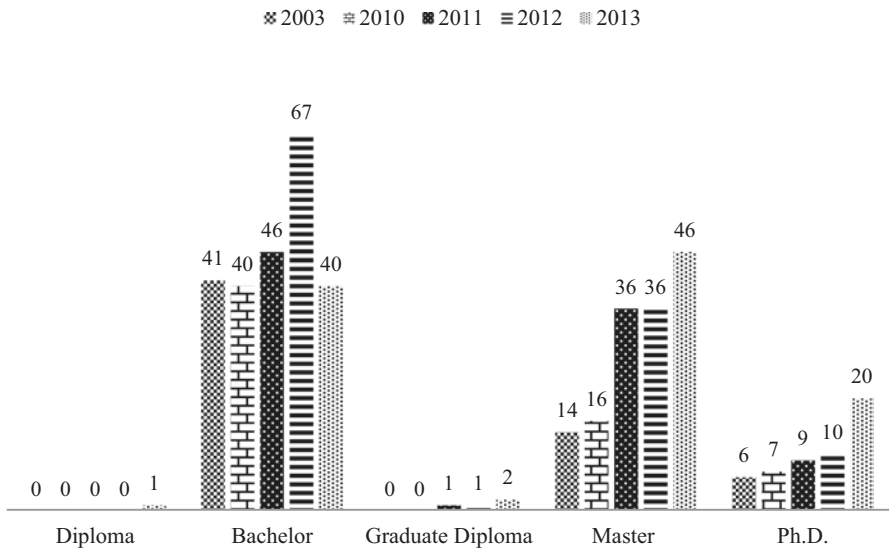


Fig. 11.5 Collaborative degree programs by levels of study and number of programs (Adapted from OHEC statistics on collaborative degree programs between Thai and international higher education institutions 2013)

Thai public education institutions increased by approximately 161% within only 5 years (Figs. 11.5, 11.6 and 11.7).

11.2.3 Internationalization of Universities at the Local Level

It is worth stressing that active international education cooperation has not been limited to leading research universities established in Bangkok. Local universities are also engaged in educational cooperation with those of neighboring countries.

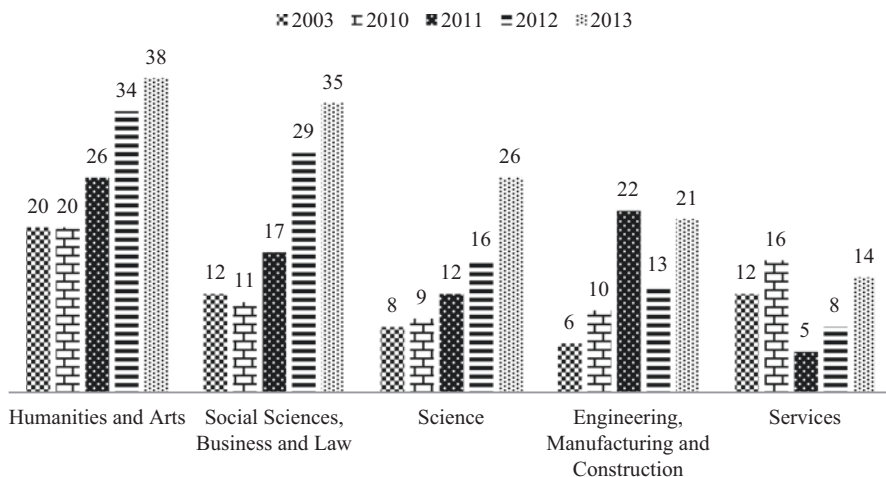


Fig. 11.6 Collaborative degree programs top five fields (Adapted from OHEC statistics on collaborative degree programs between Thai and international higher education institutions 2013)

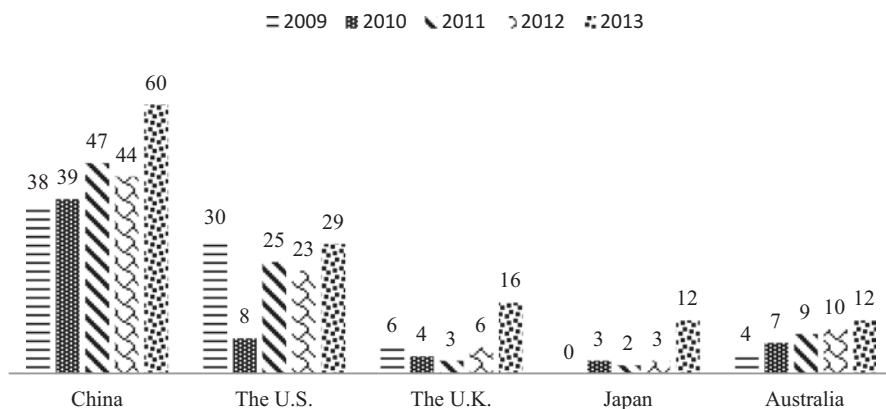


Fig. 11.7 Collaborative degree programs with top five partnering countries (Adapted from OHEC statistics on collaborative degree programs between Thai and international higher education institutions 2013)

For example, international students come to Naresuan University, Maharakham University, and Khon Kaen University for study. Naresuan University accepts those students mainly from Myanmar, Maharakham University from Cambodia, and Khon Kaen University from Laos. The three universities have provided scholarships to those students. Naresuan University established the Institute for Myanmar Studies in 1995. It signed an agreement of understanding with four universities in Myanmar to undertake joint studies and exchange of staff. It has also supported the Yangon University of Foreign Languages in terms of Thai language teaching and donation of computers. At Maharakham University, the scholarships are provided by the

Royal Foundation of HRH Princess Maha Chakri Sirindhorn. The Cambodian students study in the faculties of management, education, human and social sciences, nursery, medicine, and engineering.

Khon Kaen University has sent staff of its Public Information Division to Laos and conducted public relation activities with Souphanouvong University, the Broadcast Office of TV Channel 6, and Radio 98.00 MHz. Through those institutions, Khon Kaen University has shared with the Lao people information on curricula, the scholarship system, and campus as examples. It has also promoted the acceptance of students, the exchange of information and staff, and joint research studies with universities of Vietnam and Cambodia. To promote the cooperation with ASEAN countries, it encourages its students to learn ASEAN languages and to study ASEAN countries and their cultures. Being influenced by the establishment of AEC, cooperation among the universities of ASEAN countries are becoming more active. These international cooperation trends of local universities as well as that of major universities in Bangkok need to be more recognized (Murata 2016, 2017, March 2, Personal communication).

Also other types and forms of collaboration have occurred, e.g., Rajamangala University of Technology Lanna, a large public university in Northern Thailand, has made attempts to establish international curricula by cooperating with its international partners for 2 + 2 or 3 + 1 programs while focusing on its work-integrated learning philosophy (Moussa and Kanwara 2014); an Australian initiative to set up a network called “Developing Educational Professionals in Southeast Asia (DEPISA)” in 2010 has enabled four Rajabhat Universities to work with Australia, Indonesia, Laos, and Vietnam on professional development for school teachers and university teachers, resulting in four conferences with proceedings and monographs (Laws et al. 2016). Furthermore, 98% of Chiang Rai Rajabhat University’s international students are from China’s Yunnan Province mainly for certificate and bachelor’s degree levels following its strengthened partnerships (Chiang Rai Rajabhat University International Affairs Office 2016). China with its growing economic influence in the Mekong region is becoming an increasingly important international education player (Yos 2015).

As an example of international engagement by local regional universities, Udon Rajabhat University in the Northeast has collaborated with Southwest Minnesota State University (SMSU), which has provided special training for predoctoral Thai cohorts who come to Minnesota in the fall of every year. This program has been sustainable and is now in its eighth year with about 150 Thai doctoral students having traveled to SMSU (Panayuth and Paterson 2013). There have also been some exchanges of undergraduate students, with several SMSU students having had internships in Udon. An alumna of this program (2011), Dr. Rosarin Apahung, later became in fall, 2016, a visiting scholar at the University of Minnesota and is a contributor to this book.

11.2.4 *The Role of the Private Sector in Educational Internationalization*

The role of the private sector in education internationalization is increasing in importance. As an increased number of graduates have moved from seeking jobs in government offices to the private sector, demands and requirements for national education have changed. To prepare students better for these roles, universities have encouraged programs to focus on skills needed to understand topics such as the globalization of businesses and nonprofit organizations. Related to this important trend, Apichart (2015) has analyzed the internationalization of small- and medium-sized enterprises in Thailand.

With a sharper awareness of the need for competitiveness and for heightened creativity, a few private companies have begun to establish their own education institutions. This was followed by the establishment of *corporate universities*. The obvious example is Panyapiwat Institute of Management, which was set up in 2007 by an education spin-off company under the umbrella of CP All Plc. (PIM 2014). The Institute focuses mainly on study and research in the field of retailing and has a clear vision to develop the quality of the company's human resources. Another example is the Thai-Nichi Institute of Technology established by Japanese companies to ensure the training of skilled personnel needed by these entities.

At the national level, additional efforts have been made. International bodies/organizations like UNESCO, SEAMEO-RIHED, AUN, EU, and foundations like Fulbright Thailand have played a role in propelling Thai education internationalization forward. For the past decade, the cooperation has resulted in discussion forums and publications, e.g., *Guidelines for International Education at Thai Colleges and Universities* by Dr. Jack Van de Water¹ in 2005, a translation of *Standards of Good Practice for Education Abroad*, developed by the Forum on Education Abroad, 2005, *Creating an International Framework: A Manual for Thai Colleges and Universities* by Karen McBride,² and *Report on Higher Education Internationalization Policy and Strategy under the Thailand-EU Cooperation Facility – Phase II* by Darren McDermott (2016).

OHEC, through its Bureau of International Cooperation Strategy (BICS), has represented higher education in various arenas from AUN and SEAMEO-RIHED to APEC and the Asia-Europe Meeting (ASEM), in addition to being involved in many binational cooperative initiatives. In 2014, OHEC drafted a strategic plan to increase cooperation with Thailand's neighboring countries, namely, Cambodia, Lao PDR, Myanmar, and Vietnam (CLMV). From November 13–16, 2016, Thailand hosted the 15th General Conference of the International Association of Universities (IAU),

¹Project under the Bureau of International Cooperation Strategy, Office of the Higher Education Commission, Ministry of Education (July 2005)

²Project under the Bureau of International Cooperation Strategy, Office of the Higher Education Commission, Ministry of Education (September 2013)

which focused on “Higher Education: A Catalyst for Innovative and Sustainable Societies.”

Moreover, OHEC has initiated or expanded existing bilateral and multilateral programs. Several examples are Thailand-Austria relations that led to the setup of the *ASEAN-European Academic University Network (ASEA-UNINET)*³ for multilateral cooperation between Asia and the European Union; *University Mobility in Asia and the Pacific (UMAP)*, a multilateral form of exchanges since 1996 to identify and overcome impediments to university mobility and to develop and maintain a system for granting and recognizing academic credit; and *ASEM-DUO Secretariat and OHEC*, a two-way exchange starting in 2006 to enhance a balanced mobility of students between Thailand and ASEM member states for regular-basis exchange programs as well as for deeper understanding of the two regions, as enhanced by *Asia-Europe Meeting of Ministers of Education (ASEMME)*.

Another project demonstrating OHEC’s strong commitment was the *Malaysia-Indonesia-Thailand (M-I-T) Student Mobility Pilot Project*, which was initiated in 2009 as collaboration between the governments of the three countries and SEAMEO-RIHED. The project has included a so-called Internationalization Award (iAward) to assess international capabilities and performances of international offices of the M-I-T participating universities (see also Napaporn 2011). The exchanges and iAward have been catalysts for the internationalization efforts nationally and regionally. This project has subsequently been expanded to become the *ASEAN International Mobility for Students (AIMS) program*, aiming to create a vibrant student mobility program for citizens of all SEAMEO member countries (SEAMEO-RIHED 2014). OHEC has continued its key role until today.

Indeed, education internationalization in Thailand has much potential. Regardless of such development, there is, however, a critical argument that Thai education internationalization with over 140 years of endeavors has yet to achieve plausible and genuine progress. From the outside, Thailand’s education performance has been on an unfavorable trend especially when compared with the progress of neighboring countries with lower GDPs. The country’s higher education quality was ranked 8th (nearly last) in ASEAN and 78th in the world by the 2014–2015 World Economic Forum’s Global Competitiveness Report (*Times Higher Education* 2014). The report dramatically provoked criticism as well as raised public concerns about Thai education in general and the education internationalization process in particular. Along the path of development, we might have missed something. The Korean scholar Jang (2009) looked carefully at the relationship between internationalization and the quality of higher education. Her study somewhat surprisingly shows that the relationship is not nearly as strong as many believe (see also Horn et al. 2007).

³ASEA-UNINET covers 74 universities from Australia, Czech Republic, Denmark, Germany, Greece, Indonesia, Italy, Malaysia, the Netherlands, Pakistan, the Philippines, Russia, Slovakia, Spain, Thailand, and Vietnam.

11.3 Four Key Factors Influencing Internationalization

For a thorough understanding of Thai education internationalization, the following four significant influential factors should be considered, namely, Thai education reform, the cultural traditions⁴ of Thai educational administration, the development of global education internationalization, and the realization of the ASEAN Economic Community. These factors are interrelated, yielding unique characteristics of Thai education internationalization and posing particular challenges which persist.

11.3.1 Thai Education Reform

In its attempt to overcome the 1997 economic crisis, the Thai government received a USD 500 m loan from the Asian Development Bank (ADB) for social sector development, including education. Consequently, the country had to accept conditionalities under the funding package calling for structural adjustments. One condition required the government to overhaul and restructure the education system in order to respond more effectively to market demands and improve greater access. To comply with this requirement, the government conducted comparative research on educational administration in 12 countries, contributing to the development of the 1999 National Education Act (Fry 2002; ONEC 2001a). When implemented, the National Education Act dramatically shook up the Thai education realm with its critical changes and regulations, some of which were controversial, particularly those related to administrative restructuring.

11.3.1.1 The National Education Administration Restructuring

Significantly, under Part 1 of Chap. 5, state education administration and management were restructured by consolidating all education-related agencies to be unified under the Ministry of Education (OEC 2004). Previously, the Ministry of Education (MOE), the Office of the National Education Commission (ONEC) under the Prime Minister's Office, and the Ministry of University Affairs (MUA) were all separate entities under different ministries. The new *supra* ministry is comprised of five administrative bodies, namely, the Office of the Permanent Secretary, the Office of the Education Council (OEC), the Office of Basic Education Commission (OBEC), the Office of Vocational Education Commission (OVEC), and the Office of Higher Education Commission (OHEC), with five equal-rank top administrators. This new structure has a total staff of approximately 20,000 and has received the largest

⁴Cultural traditions/culture will be used in its broadest sense of both values; new habits developed from ways of life and thinking until they have subconsciously become "values." Organizational culture is an extremely important concept (Bolman and Deal 2013).

government budget allocation of approximately 20% every year since 2008 (with one exception in 2012) (Thaipublica 2012).

Ideally the Act was an attempt to put various education-related offices under one single ministry in order to create a unified national education policy with better and more efficient management and coordination. Despite the hope to increase inter-agency communication and better link education institutions at all levels, the five offices actually tend to lack coordination due to the nature of their workload as well as a management style led by powerful administrators of equal rank. The Act has also resulted in longer lines of coordination, especially for OHEC, which needs to go through the Office of the Permanent Secretary, when matters of concern require the presence or approval from the incumbent minister of education.

Furthermore, the structural change took 3 years to complete after the promulgation of the Ministry of Education Regulatory Act 2003. The transition slowed down education internationalization efforts at the ministerial level (the former MOE and MUA), leaving individual education institutions to determine their own directions as seen necessary. Gaps among institutions on this dimension grew wider during this confusing transitional period.

11.3.1.2 Autonomous Institutions and the Rapid Increase in the Number of Higher Education Institutions

Another significant change came under Sections 36 and 71 (ONEC 2001a). They stipulated that all state higher education institutions would become their own legal entities and were scheduled to become autonomous within 3 years after the promulgation of the Act (ONEC 2003) (see Chap. 10). Although the underlying rationale of these sections might be the government's effort to reduce its expenditures, there are some other possible merits to these changes as well.

Ideally, being autonomous institutions means being more flexible with more efficient management. Funding support from the government continues in the form of *block grants* allowing universities to manage more freely than under the previously required rigid itemized budget systems. Through their university council, they could also increase fees and raise staff welfare to attract more qualified staff. Despite increasing academic and administration freedom, the Act encountered considerable resistance at the very beginning from lecturers who still preferred government privileges and the inherited bureaucratic culture associated with the previous administrative style and system. Also students feared that this structural change might lead to higher tuition fees for them (see Rattana 2015) (see Chap. 10).

Consequently, the planned schedule was not met. In 2017 or 18 years after the Act, only 21 out of 79 public higher education institutions have become autonomous, while 58 retain their traditional bureaucratic status (OHEC 2014a).⁵ The

⁵This section focuses on public higher education institutions which are all under OHEC. However, OHEC supervises not only public higher education institutions but also supervises private higher education institutions, private colleges, and community colleges.

autonomous institutions are now aligning themselves better with market-driven forces. Fees have been increased and more seats made available. New programs, particularly international ones with higher fees, have exploded. Competition is intense as the institutions strive to find more funding to compensate for the decreasing government budget. Education internationalization has thus become the key word that makes institutions more attractive as international programs are perceived as a major potential source of new revenue.

Amid the debate on the advantages and disadvantages of autonomous education institutions, Rajabhat Institutes and the Rajamangala Institutes of Technology were upgraded to university status. Originally, the Rajabhat Institutes were founded as teacher training colleges and located in 41 provinces under the supervision of the Office of Rajabhat Institute Council, MOE (before the restructuring in 2003). Rajabhat Institutes had long been well known for their expertise in training teachers and cultivating local wisdom for provincial development. With the increasing demands for higher education beyond the field of teaching, the institutes started to offer diversified programs in different disciplines and saw increased enrollments. The Suan Dusit Rajabhat University, for example, established master's degree programs in education, public administration, business administration, and mass communication from 1997 to 2003. In the same period, the university also established branch campuses in other provinces and even offered a doctoral program in management (Suan Dusit Rajabhat University 2014).

The 41 Rajabhat Institutes were successfully upgraded to university status under the 2004 Rajabhat University Act, to be supervised by OHEC. A year later under the 2005 Rajamangala University of Technology Act, nine Rajamangala Institutes of Technology gained university status with the authority to grant degrees higher than the undergraduate level. Moving from the original MOE where the administration was highly centralized to OHEC, formerly MUA, where institutions enjoyed more autonomy and academic freedom, both Rajabhat Universities and Rajamangala Universities of Technology unavoidably faced new organizational culture changes and challenges.

The number of public higher education institutions under OHEC has increased from 24 in 2002 (MOE 2002) to 79 in 2014 including 40 Rajabhat Universities⁶ and 9 Rajamangala Universities of Technology (OHEC 2014a). The growing number has made it harder for OHEC to promote internationalization across the board, considering that both Rajabhat and Rajamangala universities are in different stages of development from traditional universities and have operated in more centralized and specific contexts for decades. OHEC also supervises private higher education institutions and community colleges.

⁶In 2005, a year after 41 Rajabhat Institutes were upgraded to university status, Nakhon Phanom Rajabhat University merged with six other local universities and colleges to become Nakhon Phanom University.

11.3.1.3 Quality Assurance Imposed by Law

Another controversial issue regarding the National Education Act 1999 is the requirement that all educational institutions must conduct both internal and external quality assurance exercises. Under Chap. 6, Internal Quality Assurance (IQA) and External Quality Assurance (EQA) systems were established. OHEC is responsible for developing the IQA system in which higher education institutions are required to conduct an assessment and submit an annual report to OHEC. In parallel, the Act also established in 2000 the Office for National Education Standards and Quality Assessment (ONESQA), a public organization responsible for EQA criteria and method development. Additionally, ONESQA established EQA assessments for all levels of educational institutions required to be conducted at least once every 5 years (OEC 2004). Ideally, the IQA report should not only provide the basis for the EQA but also the IQA as both assessments should move toward the same direction with a shared vision.

Notably, the MUA (later OHEC) introduced the QA (quality assurance) system to higher education circles well before the 1999 Act and the establishment of ONESQA. In 1996, the MUA announced its QA policy and guiding directions for all higher education institutions to enhance the quality of their core missions in academic and student services. The policy focused on the faculty level considering that it was this level that determined the quality of an institution as a whole. It also promoted peer review as a QA mechanism for higher education institutions to learn from and share with each other. At its core, institutions had the autonomy to choose to adopt or develop any QA system that best matched their own contexts, while the MUA saw itself as an external assessment body (Porntip 2004a, b). When IQA and EQA became new and large platforms with which all institutions had to comply, previous efforts by the MUA proved to be highly beneficial by helping prepare higher education institutions to meet changing and challenging new requirements.

Mandated by the National Education Act, OHEC and ONESQA have taken the lead to develop the indicators and criteria for IQA and EQA, respectively. Despite continuous improvements of the indicators of the two systems, it remains difficult to find a formula suitable for all institutions nationwide. In reality, there are cultural and development gaps among higher education institutions, particularly with regard to the newly upgraded ones. Consequently, both quality systems have turned to minimum standard requirements – the *one-size-fits-all* solution, with only a handful of indicators that all higher education institutions must utilize. The systems have somehow failed to address specific contexts, capabilities, and challenges of each university, specifically policies and actions related to internationalization.

Back in 2002, OHEC introduced the Malcolm Baldrige Criteria as one of the tools for QA development in an effort to improve IQA. The pilot project was launched to benchmark ten faculties of sciences, medicine, and nursing in leading

public higher education institutions, using the Malcolm Baldrige Criteria. The project was highly successful, and many pioneers became assessors of the Thailand Quality Award (TQA – established in 2002 and modeled after the Baldrige National Quality Award) (Porntip 2004a, b). However, it took more than a decade before the criteria were formally adopted and readjusted to be known as EdPEX, an acronym created meaning the Educational Criteria for Performance Excellence. The new framework allows leading higher education institutions to decide their own suitable processes to measure their desired results. It also encourages them to consider their specific contexts and set indicators they would like to achieve.

Recently, OHEC has initiated several related projects to raise the quality of universities including the National Research Universities Project in 2009, with nine research universities selected for implementation from the year 2010 onward and a national world class university project in 2013 (OHEC 2011a, b). It is unfortunate that only the former survives today. However, the quality movement for education internationalization has significantly been fueled further by the AEC inception in 2015 and the national dream of Thailand becoming a regional education hub. It may seem that while quite a few initiatives would directly or indirectly enhance the internationalization process, most are implemented separately and only some have survived amid the overly frequent change of senior administrators (Table 11.8).

The National Education Act of 1999 mandated huge changes in the structure of a new ministry of education and the introduction of a new comprehensive quality assurance system (see Chap. 24). The focus then was on setting up systems as required by the law. In addition, the attempt to promote quality education through quality assurance systems has focused on the *report writing technique*. OHEC offers only a few examples of international dimensions related to learning sources with research publications, international professors, or international recognition through numbers of awards received. The EQA is somehow more specific. For the three 5-year cycles (2001–2005, 2006–2010, 2011–2015) (ONESQA 2003a, b, c, 2008, 2012), the EQA requires assessment of outputs and outcomes through several indicators related to internationalization, especially on research publications of both professors and graduate students. Still, only the OHEC-supported nine research universities, aiming to reach world-class standards, have added internationalization efforts as one or several of their quality indicators.

It could be said that the latest education reform invested a great deal of focus and energy on changing organizational structures as well as systems and mechanisms, mandated by the 1999 National Education Act (see Chap. 21). Only nine research universities and other leading universities have been in advantageous positions with their existing capabilities and funding. Therefore, policies and implementation of internationalization efforts have not been clearly visible on the higher education radar. Also the NEA focused largely on basic not higher education, and internationalization was not a priority explicitly addressed in the Act.

Table 11.8 Chronology of key actions and activities relevant to Thailand's education internationalization

Year	Major development
1990	The First 15-Year Long-Range Plan on Higher Education (1990–2004) Education internationalization was mentioned as part of the national agenda
1991	MUA organized the National Seminar on Internationalization of Thai Higher Education for sharing experiences from different countries in order to create mutual understanding of the process
1992	The Seventh National Higher Education Development Plan (1992–1996) internationalization and regionalization were emphasized Dr. Van de Water did a study on international programs in Thailand under the support of MUA in collaboration with Fulbright Thailand
1996	MUA announced a QA policy and guiding directions with MUA as the quasi-external assessment body A benchmarking project by MUA, the Thai Consortium of Medicine and the Thailand Quality Institutes
1999	The 1999 National Education Act called for the restructuring of the Ministry of Education and the enforcement of the QA systems, both internal and external to be known later as IQA and EQA, respectively
2000	ONESQA established
2003	The Ministry of Education Regulatory Act to merge the three main education agencies (MOE, MUA, ONEC) into a single MOE
2004	Rajabhat University Act 41 Rajabhat Institutes were upgraded to university status and moved under OHEC
2005	Rajamangala University of Technology Act Nine Rajamangala Universities were moved under OHEC
2008	The Second 15-Year Long-Range Plan on Higher Education (2008–2022) Focused mainly on the quality issues of the Thai higher education system
2009	The cabinet approved the National Research Universities Project as part of Projects Financial Monitoring System Stimulus Package 2 Nine universities subsequently announced as the National Research Universities

11.3.2 *The Inherited Education Administrative Cultures*

Education in Thailand has been moving toward becoming more centralized, formal, and international since the reign of King Chulalongkorn the Great (1868–1910) (MOE 1994; Prachoom 1965). Back then, like in many other countries, only the elite had access to education, the purpose of which was to nurture human resources solely for the rapid expansion of government services. In response to the urgent demand for highly trained government officials, a number of the elite were sent abroad for study, while the government, for the first time, established a school to train future officials. The history of Thai modern education was thus begun by the nobles to train the privileged to serve the royal court/the government. This idea is deeply rooted and influential in the development of Thai education today. It also frames educational values in Thai society in that the ultimate goal of having education is to be a civil servant (MUA 1992). A good number of the older generations

still wish for their children to serve in the government service, as they reason that this career path will bring job security, lead to increased authority and recognition in society, as well as bring honor to individuals' families. Those working at the ministerial level tend to have influence and appear to be *in charge* with considerable power and influence.

Working for the government implies authority and power which are highly attractive in Thai culture. In addition, after centuries of the nobles and elite from related families dominating government offices, a culture of seniority has been deeply embedded in Thai society even in this age of globalization and competition. The perceptions of authority and power as well as the culture of seniority underline the characteristics of today's Thai government and the Ministry of Education in particular, as it is highly centralized and extremely hierarchical. The decisions made are mainly based on judgments of those in the powerful senior positions. International scholars more than four decades ago described Thailand as a *bureaucratic polity* (Riggs 1966; Siffin 1966). Those patterns persist as a form of adverse powerful continuity.

During the transition reform period, the MOE had to cope with frequent changes of its top administrators. Due to political instability, there have been 20 different ministers of education within 17 years from the period 2000 to 2017 (MOE 2014) (see Appendix II). Apparently, each administration change came with new initiatives and sense of pioneers. Taking ownership of initiatives is closely linked with the value of *face* and *image* highly valued by Thais particularly among Thai bureaucrats (Persons 2016). In fact, saving face and image are in the same package as the culture of authority, seniority, and hierarchy. Because of such a cultural package, it is preset that any policy initiated is sound and will be achieved. Accordingly, ceremonies to launch new policies are part of success indicators. Actual quality assessment is not as important. There is also a lack of performance assessment of the MOE and OHEC themselves, making it difficult for ministry/offices to convince the educational community and the public in general that their policies and management could generate positive outputs and impacts on education, stakeholders, and communities.

Another tradition is the promotion of middle to high government officials, which is often based on seniority rather than professional capability. This not only discourages staff to excel in their performance but also affects the whole organization's functioning effectively. Corruption can also be involved in promotions (see Hallack and Poisson 2002). The promoted senior administrators, for their own comfort, may pay direct attention to their own personal keen areas of interest and ignore more essential work. International relations, which require people with proficiency in English and an international outlook in addition to other qualifications, could be viewed merely as routine, not strategic tasks, creating missing links and opportunities to push education internationalization from the macro management perspective.

As mentioned earlier, the legacy of a powerful centralized administrative culture has unfortunately hampered human resource development and creativity in many government offices, including the MOE. The bureaucracy and hierarchy have also promoted the status quo in which changes are possible only through top-down

instruction and consequently innovations are minimally encouraged. As time goes by, climbing up the career ladder in the public service, though remaining prestigious, is no longer as attractive to young talent, who are able to easily find jobs with much higher incomes elsewhere such as in the private sector or abroad. Changes in the labor market have further limited options for government offices to hire highly competent staff. Like other government offices, the Thai MOE (OHEC included) seriously suffers from both not being able to attract enough top talent and then inadequately using the talent it does attract.

However, despite the regular scholarship programs to recruit highly capable members of the young generation to the government service and improved salary structures, the Thai government has been well aware of the challenges facing its human resource development. In 2004, the government approved the Public Service Executive Development Program (PSED), which aims to recruit highly capable personnel from fresh graduates to mid-career professionals and train them to become potential government officers. The management of PSED is assigned to the Office of the Public Sector Development Commission (OPDC) which launched its first PSED in 2009 (OPDC 2014). It is the hope that younger generations recruited for government service through different channels will be able to demonstrate their competence in leading higher education institutions to meet current and future challenges. This will enhance the role of the MOE in retaining its significant position as the national body for education development with recognition and respect from the educational community.

The inherited traditional working cultures of authority, seniority, face, and image have caused much less open discussion and two-way communication due to the familiar top-down instructions and support. Though higher education institutions have their institutional autonomy and academic freedom to launch or carry out their own internationalization processes, they hope to get some guiding directions especially from national policy agencies. Without proactive initiatives and new inputs to enhance internationalization across higher education institutions at the macro level by the incumbent administrators, institutions are left to strive on their own with no mutual understanding of national directions and no or inadequate necessary financial support.

11.3.3 Global Education Internationalization Development

On the world stage, international education itself has been changing rapidly. On the one hand, it is more comprehensive, more inclusive, and more systematic than it was decades ago (Hudzik 2011). On the other hand, it has received great impacts from globalization leading to educational massification and commercialization (Altbach 2013; Powers and St. John 2017).

It may be valuable to draw on examples from the European Union and the USA, the two main players in the international education field. The former initially started its education internationalization as a mechanism to promote regional integration

and harmonization as well as to be a recognized entity on the international stage, while the latter began its effort almost a decade behind due to the irresistible forces of globalization.

In 1987, the European Union initiated the Erasmus program for student mobility within its member countries. The program was a tremendous success, particularly with support from the establishment of the European Credit Transfer System (ECTS), the Diploma Supplement, the two- and three-cycle structures, quality assurance, student-centered learning, and the qualification framework. In 2004, the Erasmus Mundus program was launched to cover non-European countries. Since then, the program has grown to include 43 joint doctoral programs in just under 700 higher education institutions and involving over 16,000 students, Ph.D. candidates, and faculties (McDermott 2013). Education internationalization in Europe has been developed in impressively comprehensive and systematic ways with increasing numbers of countries involved.

Across the Atlantic in 1996, US international education was still limited in exposure to other countries and was mainly administered through programs such as area studies at large research institutions and occasional research collaborations/projects focusing on less developed countries (Sutton 2014). The USA has no national international education policy. Over the past two decades, however, the USA, along with other countries including those in the EU, has jumped on the same bandwagon due to intensified globalization resulting in growing demands for graduates with skills for a global era, greater student and faculty mobility, increasing excellent institutions of higher education worldwide, IT-supported research and teaching, and rising numbers of those who can support their education abroad.

These existing and emerging factors put pressure on higher education institutions to develop themselves toward *international standards* and to foster international cooperation. Education internationalization everywhere has developed dramatically:

Over the last two decades, the concept of the internationalization of higher education [has] moved from the fringe of institutional interest to the very core...New components were added..., moving from simple exchange of students to the big business of recruitment and from activities impacting on an incredibly small elite group to a mass phenomenon. (Brandenburg and de Wit cited by Sutton 2014)

This reflects the changing pattern of education internationalization while emphasizing the rise of economic driving forces. There is now a call for *comprehensive internationalization* (Hudzik 2011).

In the age of competition and struggle for higher education institutions to become self-supporting, increased enrollment became the major focus of the institutions and could be achieved in exchange for academic excellence. Education internationalization has somehow become not only a fad but also fancy propaganda for income generation by trying to increase local and international student enrollments. When academic and economic purposes are compromised, there is a risk that educational institutions will get derailed. Thai higher education institutions, thus, have to examine closely and carefully their strategic challenges, going beyond narrow financial and image-related foci.

11.3.4 The Establishment of the ASEAN Economic Community (AEC)

The ASEAN leaders resolved that an ASEAN Economic Community be established and affirmed their strong commitment at the 12th ASEAN Summit in 2007 to accelerate the establishment of this community by 2015 which did happen. The realization of AEC has significant implications for education as it necessitates support of human resource development. Ideally, the AEC must be built on systematic and integrated human resource development from basic to vocational and to higher education. In the short term, however, pressures seem to be on higher education institutions as they are required to nurture graduates competent and competitive enough for the new market environment and increased competition.

In particular, ASEAN further promotes regional cooperation in trade in services through *Mutual Recognition Arrangements* (MRAs) in which signatory member countries mutually recognize professional qualifications of service providers, thus facilitating the mobility of professionals in the seven areas of engineering services, nursing services, architectural services, surveying qualifications, medical practitioners, dental practitioners, and accountancy services (ASEAN 2014). Career opportunities in these areas of services became more and more competitive and challenging for new graduates region-wide. In addition to knowledge and skills necessitated for the particular areas, graduates must develop language competency and cross-cultural skills in order to work effectively across borders. While English is a must-know language and is the working language of ASEAN, the knowledge of other ASEAN languages will certainly make a graduate's profile more attractive.

ASEAN's commitment to the establishment of the AEC is a great driving force for proactive relevant international policies, actions, and support within the Thai higher education community. With the AEC now being operational, this has led to favorable impacts on the internationalization process. In addition to the exchanges with partner countries around the world, most if not all education institutions have started to look within, particularly those closer to their respective locations. Some that already have partnerships with the nine other AEC countries continue their cooperation with more confidence of support from the governments involved. Others with few or no partnerships have explored possibilities and are looking for increased opportunities for exchanges. Graduate programs and centers related to ASEAN have mushroomed.

For example, Kasetsart University established an undergraduate program in Southeast Asian studies in 2006 (SEAS 2014). Walailak University started to offer an undergraduate program in Southeast Asian studies in 2012 (Fatonionline 2012). In 2013, Thammasat University established a Center for ASEAN Studies (CAS 2014), while Naresuan University extended their undergraduate programs in various ASEAN languages to the postgraduate level (DLF 2016). Recently, Suan Sunandha Rajabhat University developed 15 undergraduate and postgraduate programs relevant to ASEAN (Siamturakij 2014). The highlight on ASEAN is also reflected through the numbers of international students from the region studying in

Thailand (see Table 11.3) and number of students and staff exchanges under MOUs classified by top five countries of international institutions (Table 11.5) in which Laos and Vietnam are ranked among the top.

In response to the establishment of the AEC, OHEC has formulated three plans to intensify the quality of graduates, strengthen higher education institutions, and enhance the role of Thai higher education in ASEAN. The first plan emphasizes English proficiency and cross-cultural skills, while the second focuses on academic and research excellence together with international standards of facilities and environment. The third aims to make Thailand an education hub for neighboring countries (OHEC 2011a, b). The plans could benefit from different organizations and networks related to educational collaboration that currently are based in Thailand including the previously mentioned AUNS, ASAIHL, ASEA-UNINET, AUAP, UMAP, Internet2, UNESCO, and SEAMEO-RIHED as examples.

From an alternative perspective, the AEC has become a fad and a catchword for policy announcements, public relations purposes, and importantly grant proposals. OHEC mentioned in its plans that budget should be allocated for student exchanges and research studies in the region as well as for staff development and hiring high qualified international lecturers (OHEC 2011a, b). From 2008 to 2012, the number of Thai government scholarships for ASEAN students rose from 1232 to 2701 (OHEC 2012). In addition to support from the government, individual institutions provide funding for various projects related to ASEAN. Leading higher education institutions including Chulalongkorn University, Thammasat University, and Mahidol University initiated scholarship schemes for ASEAN students to study undergraduate programs in communication arts, economics, and other fields at respective international colleges (Faculty of Communication Arts CU 2014, TU 2014, and MUIC 2014). The Regional Center for Social Sciences and Sustainable Development at Chiang Mai University offers a MA in Development Studies with scholarships available for students from the Mekong region.

With the strong emphasis on policies and actions for AEC preparation within the Thai higher education community, the movement could, however, contribute to drive the internationalization efforts further. In other words, education regionalization is another path toward education internationalization. Both regionalization and internationalization complement each other in many ways, e.g., English language use, improved facilities and support services, international programs, and cross-cultural learning.

All the four factors are interrelated and should be considered as one framework for alignment and integration. The main foci on structural reform and enforced quality systems, unfavorable working cultures, uneven stages of development in internationalization processes, and the increasing economic pressures have distracted attention of policy makers and institution administrators from either the core of education internationalization or from the process itself. The changes and developments which have occurred, particularly within the 18 years after the 1999 reform, have resulted in weak relationships and a lack of cooperation between higher education institutions and OHEC/MOE. Despite such problems, quite a number of institutions seem to have made much progress and taken proactive steps toward

internationalization. With mutual understanding, an agreed framework, and the strong leadership of OHEC/MOE, the agencies will be able to synergize internationalization efforts of universities to move much more stably and effectively toward national goals (Table 11.9).

Table 11.9 Influential factors affecting Thai higher education internationalization, points of concern, major consequences, and impacts

Factors	Points of concern	Major consequences	Impacts on Thai higher education internationalization
The inherited education administrative cultures (national level)	Authority	Limited opportunity for creativity and innovation, resistance to change	Unable to track/respond to changing global trends in good time
	Hierarchy	Top-down policy with vague indicators	Missing link of macro management picture
	Centralization in practice	Series of new initiatives with no serious follow-up and assessment	No results-oriented policies
	Face and image	No integrated work within OHEC/MOE	No self-reflective system for organizational improvement
	Frequent changes of ministers	International relations seen as specialization not function Talent deficit	Inadequate lead for Thailand's education internationalization process
Thai education reform	Ineffective government restructuring	Education internationalization as low priority since the main focus was on structural changes	Interrupted effort and then less proactive role of MOE/OHEC
	Widened development gaps among higher education institutions	Inadequate but longer lines of coordination within MOE (and OHEC)	Disconnected and misleading efforts among higher education institutions
	Quality overwhelmed	Unrealistic institutional self-reflections and goals QA assessments as burdens and irrelevant to institutional contexts	QA by checklist and by <i>minimum</i> standards
Global education internationalization development	Changing patterns due to intensified and accelerating globalization	Increased competition and institutions' struggle to be more self-supporting	Conflicts between academic value and economic demands Education internationalization not focused on core missions of institutions

(continued)

Table 11.9 (continued)

Factors	Points of concern	Major consequences	Impacts on Thai higher education internationalization
The realization of the ASEAN Economic Community	Overly proactive policies, actions, and support for regionalization	AEC as key word (fad) for institutional PR and funding proposals	More attention to English
		More attention on cooperation within the region	Regionalization not seen as one same path toward internationalization

11.4 Challenges: Then and Now

11.4.1 Confusing Efforts

On the surface, Thai higher education institutions can be seen as actively promoting internationalization with some productive results and impressive accomplishments. However, when asked to define exactly what *internationalization* or an *international program* is, it would not be a surprise to get different responses. Despite making education internationalization a key issue on the national agenda and several attempts, particularly by MUA/OHEC, to promote mutual understanding of the process across institutions, there is actually still little clarity surrounding the concept. The result is inconsistent interpretations that are not further defined or elaborated by the MOE or OHEC. The First and the Second 15-Year Long-Range Plans neither have a clear policy nor general national requirements for education institutions to implement due to a firm belief that with support from their respective institution councils, they should be able to “pick and choose the definition with which they are most comfortable, as long as it reflects true quality” (an OHEC representative quoted by McBride 2012).

Therefore, Thai education institutions have enjoyed the liberty to direct their internationalization efforts according to their own preferences. Yet, they are still bound to comply with IQA and EQA indicators/standards, the criteria of which may or may not be relevant to their education internationalization endeavors. Besides, the two QA systems have not had specific indicators to measure the achievement level institutions have made in their internationalization efforts. This results in differences of interpretations of *education internationalization*.

The most widespread yet most misleading interpretation is the use of English as a medium of instruction. It is the erroneous belief that by simply translating Thai curricula into English, it magically becomes international (see Phan 2017). The same logic is also applied to the programs, in which Thai lecturers teach the whole class of Thai students in English regardless of the limited English proficiency of many lecturers themselves and the students (see Phan 2017). It is unquestioned that English is an international language (and an official working language of ASEAN) and that English proficiency is one of the major skills graduates are required to master for their future careers. Nonetheless, English learning should be regarded as

a complementary skill provided by many international programs. The real essence of international programs is the content, delivery, and related support services. The content includes the must-know and the should-know knowledge and skills for students' professional and personal development. The support activities could be, for example, exchanges and internships that enrich students' learning while exposing them to different worldviews and cultural perspectives (Porntip 2004a, b). It is important that the skills of the twenty-first century like cross-cultural sensitivity, intercultural competence (Bennett 2015), critical thinking, and problem-solving are integrated into students' learning process. These skills are crucial for their competitiveness even years after graduation.

With proper management, international programs could greatly enhance an institution's overall internationalization. International students and lecturers are available resources relevant to enhancing cross-cultural understanding and intercultural competence. Higher education institutions should be encouraged to promote the use of these resources to benefit the majority of the student body and their staff in more meaningful ways than simply having cultural nights, food festivals, and costume competitions (superficial *shallow internationalization*, the three Fs, fun, food, and festivals). Both sides should be encouraged to learn from and share with each other through every opportunity possible so that they can analytically understand more about themselves and others. This will eventually promote education internationalization, which is the process of integrating an international/intercultural dimension into all functions of higher education institutions (Knight 2003).

The surge of international programs in Thailand does not need to be an alarming or surprising phenomenon as it responds to increasing demand as well as economic forces. What should be critically examined is the *quality* of content, delivery, and management – the heart of international programs. At the same time, OHEC is in the best position to take the lead to convince universities that the institution's population as a whole needs to benefit from internationalization efforts. Knowledge and experience shared by international students and faculty must be maximized so that all can mutually acquire more diverse skills that they may need in changing or other cross-cultural environments within or across national borders (Mestenhauser 2011).

There is a serious need to make sure that all internationalization efforts, regardless of different development paces, move toward the same directions and are based on a common shared goal. It is the task for policy makers (MOE and OHEC) to make clear first the interpretation of education internationalization and core elements for mutual understanding. By knowing the *means*, the *end*, and the *ingredients*, individual institutions could better design their own customized *internationalization menu*.

11.4.2 QA Trap: Trick or Treat

Evidently, QA is one of the most controversial issues among educational institutions. Some have faith in the standardized quality system. Others are skeptical of its practicality. From any aspect, QA is essential, preferably with less imposition and control from OHEC and ONESQA.

It has been widely criticized that the current educational QA system in Thailand is irrelevant and burdensome. It is irrelevant in the sense that all institutions, regardless of how advanced they are, are assessed by a similar set of criteria and requirements. Indeed, each individual institution inherits a unique character and context. They might be even established for different purposes with different specializations. With standardized *values*, some institutions, especially the newly upgraded institutions that have been very much accustomed to a *centralized administration approach*, have unfortunately given up their particular strengths so as not to miss out on the mainstream movements. The country loses its richly diverse human capital incubators when teachers and vocational training experts shift their focus to, among others, practical fields such as business administration, mass media communication, and even nursing.

With many institutions having their internationalization efforts at various stages, imposing the same criteria across the board could be considered unrealistic and impractical. Instead, IQA and EQA criteria should include only a handful of core values that all higher education institutions can share such as the true mission of universities to foster national development and the production of graduates with international outlooks and mind-sets. Institutions could then decide the rest of the more specific criteria, based on their own context and readiness. Only those that cannot meet the minimum standards should be imposed with strict measures to be fulfilled. In the same way, those with advanced development should be allowed to move forward to the next stage of development. In such a case, EdPEX gradually has been regarded as more relevant than IQA.

Equally criticized is the burden of the QA system, which introduces a series of assessments by different bodies. The imposition of OHEC's order and the law that requires both IQA and EQA to be undertaken have created changes in working habits among the staff of Thai higher education institutions. During the *QA season*, the institutions' QA task forces work toward the completion of the required indicators in order to *pass* the criteria set by the two agencies. This results in a checklist syndrome – an unconscious satisfaction with simply *having* something to complete the list. Furthermore, attention paid to fulfill the legal requirements makes many universities focus more on individual internationalization elements than the integration of the whole process and effort.

In theory, working on IQA should help educational institutions work on EQA, but in practice, each element of the indicators tends to have insufficient links with each other. The QA task is then tiresome and unnecessarily time-consuming. As McDermott (2013) pointed out, Thai universities experience *evaluation fatigue*. The QA saga is actually worsening when it comes to rankings. The *perfect* checklists can bring educational institutions up to higher ranks in various surveys available on the *education market*. Even for the international rankings such as *Times Higher Education World University Ranking* and *QS World University Ranking*, Thai higher education institutions are far too concerned about their ranks rather than how to apply and adapt the criteria to best suit their own respective contexts, strengths, and objectives. When being ranked matters more than striving for a personal best, educational institutions become *prisoners of the rankings* (Sutton 2014). In such a situation, many universities may not only be trapped by self-illusion but also fail to

become genuinely enthusiastic for seriously moving the institutions toward the educational internationalization they wish to achieve.

It is a huge challenge for policy makers to integrate fragmented QA efforts into a more practical and effective scheme that is flexible enough for educational institutions with different contexts and development stages of internationalization. Such a QA scheme will ensure the diversity of institutions and allow them to move at their own pace with less pressure. It will also redirect staff to gear their attention to the strategic objectives of education internationalization.

11.4.3 National/International Facilitator: The Role of OHEC

To ensure that education internationalization has continued to flourish in actual actions at the implementation level, it requires a concerted effort from *all* sectors to guide the movement toward the same shared vision. Thus, there is a need for a central body to monitor and facilitate the whole education internationalization process. McDermott (2013) mentioned in his report that institutions should be empowered and supported in their establishing regional and international links. He also noted that institutions wish for more and proactive government assistance in their education internationalization. This is in line with recommendations made by representatives from both public and private education institutions at the Education Internationalization Forum in 2014. They agreed that there is a real need for a national center for education internationalization and strategic development. None is in the better position than OHEC to assume this role. With its influences on national education policy, some control over budget, and networking position within and across ministries, agencies, and governments, OHEC has the perfect tools and mechanisms to take on this important and challenging task.

Being the main government agency responsible for higher education of the country, OHEC has been asked to implement national policies putting them into practice for all of the educational institutions under its supervision. Its position at the macro level enables the office to have a bird's-eye view of both national and international levels. OHEC could help identify opportunities, seen and unseen, to strengthen the whole process of education internationalization in the country. With lessons learned from elsewhere and from ASEAN in particular, OHEC is in a good position to take the lead in standardizing supporting tools and practices such as establishing criteria and the processes of the designation of academic titles and requirements for publication of research studies in international publications (Chanita et al. 2015). If strategically managed, OHEC can definitely generate benefits properly for all higher education institutions under its jurisdiction and align national policies, internationalization included, with their specific contexts and directions.

At the national level, OHEC needs to be instrumental in piecing together the jigsaw of the education internationalization process within Thailand. Furthermore, OHEC could also potentially play a role in identifying possible areas of cooperation, networking opportunities, as well as potential links within/between institutions

under its auspices and beyond. For example, OHEC could work with the Department of International Trade Promotion and even with the Ministry of Foreign Affairs (MFA) to promote Thailand international relations based on the analysis of important trade data shown previously in Table 11.3.

At the ASEAN and international level, Thailand has already developed education cooperation with various partner countries for almost two centuries as earlier mentioned. Fortunately, Thailand is situated in a central strategic location in the Southeast Asian region and is home to many key regional and international organizations relevant to education such as the AUN Secretariat, UMAP, SEAMEO Secretariat, SEAMEO-RIHED, UNESCO Asia and Pacific Regional Bureau of Education, Asian Development Bank (ADB), World Bank (WB), The Asia Foundation, and UNICEF. Many of these networks inevitably overlap and need to be integrated to be more complementary. Then, the more integrated international/regional networks could be linked with individual partnerships at the institutional level for sharing opportunities and having even greater impacts.

First and most importantly, however, it would be highly beneficial if OHEC could reset the stage with a clear working definition of *internationalization* and guiding directions, clarifying its essential elements by reviewing lessons learned and guidelines already available from both internal and external expertise. The wealth of knowledge, experiences, and best practices from implementation at all levels will certainly add to another important development stage of internationalization efforts.

Secondly, OHEC as a central body should not seek to be a controller of the education internationalization process. Rather, the office needs to redefine its role as a partner, a resource/research center, a matchmaker, and a catalyst. Indeed, the pace of education internationalization differs from institution to institution depending on individual priorities, strengths, and special characteristics. It is too ambitious for one office to seek control over some 157 higher education institutions (82 public institutions, 75 private institutions, and 20 community colleges, now integrated as one entity). Besides, the institutions naturally know their own substance and challenges far better than OHEC. Seeking to control them is a vain attempt as different contexts require different approaches. The recent trend of corporate education institutions has posed both challenges and opportunities for OHEC to become even more strategic in its overall management to maximize favorable results.

Thus, repositioning itself as a facilitator and partner could be a major improvement. OHEC would need to refocus its staff and resources on a more contributive and specific agenda. Indeed, OHEC needs to set a single united database system for ministry-wide and nationwide use, collecting key analytical statistics relevant to education internationalization locally and globally and identifying good practices and crucial issues. The task requires much effort and cooperation within OHEC and with others including OBEC, OVEC, other ministries, local/international organizations/networks, higher education institutions, and the private sector, as examples.

Once established, the system could help OHEC to compare the data obtained more effectively against the nation's policies (and even against other ministries' policies/data) to determine progress, opportunities, needs, and weakness of education internationalization in Thailand from the macro perspective. The results then

would be crucial for policy adjustment, for recommendations for types of support (e.g., training, seminars, study visits), and for financial opportunities, suitable for education institutions to improve and excel. The database system will also become a crucial tool for the government, other ministries, and higher education institutions to have a clearer picture of the situation, what strategic directions they should take, and how to work best together.

11.4.4 Institutional Facilitator: The Role of IROs

On a smaller more microscale, within an educational institution, similar phenomena exist. There could be international relations offices (IROs) at department, faculty, and institutional levels. Interestingly, the IRO, which is the forefront office to push forward the respective internationalization process, is normally underrated and underappreciated. According to OHEC's information (OHEC 2014a), there are only 10 out of 82 public higher education institutions that have established their own central IRO for institution-wide purposes. Others have integrated international relations affairs into the president's office under the responsibility of the vice president for international relations or academic affairs. Some delegate the responsibilities to language institutes. Another key issue is whether a top-level line administrator such as a vice president is responsible for international policies and activities.

One more recent development is an unofficial document of the BICS-OHEC showing the rapid rise in the number of international colleges at many Thai universities. Currently, there are 32 international colleges, turning Thailand into one of the leading nations of the ASEAN region in terms of the number of its international colleges (Calingo 2015) (see Table 11.10). Consequently, there could be some inevitable changes of roles, either increasing or decreasing the IRO's importance, if not additional confusion and complications because of the overlapping or unclear roles. One definite impact is the urge for all universities with international colleges to ensure that their management demonstrates integrated efforts for internationalization of the whole university. Such a movement is another matter that OHEC and university administrators have to ponder, with serious consideration directed to the setup and viability, necessary support to ensure quality of instruction and services, and identification of good practices for widened sharing and joint development (Fig. 11.8 and Tables 11.10, 11.11).

With or without a central IRO office or other newly setup resource center similar in function, relevant agencies are still insufficiently empowered and faced with inadequate networking cooperation within their institutions. In general, IRO staffs are perceived as administrative staff for international affairs-related "clerical" work. They are then expected to most importantly be proficient in English and handle basic logistics like paperwork, visa, and accommodations for exchange scholars/students.

An efficient central IRO is therefore essential to drive the progress of education internationalization. Without the central body, efforts at the faculty and department would have limited results and not be equipped to meet the institutional goals and

Table 11.10 Number of international colleges in the various ASEAN

Country	Number of international colleges
Brunei	2
Cambodia	2
Indonesia	9
Laos	1
Malaysia	35
Myanmar	1
Philippines	14
Singapore	12
Thailand	32
Vietnam	4
Total	112

Fig. 11.8 Pridi Banomyong International College named after the former prime minister and founder of Thammasat University (Photo courtesy of Dr. Rattana Lao, standing, who previously taught at the college) (see Pridi 1974, 2000)



vision of internationalization. It is equally important to set up a campus-wide cooperation system in which faculties and departments still have freedom to initiate and implement their own programs but with guidance and *influence* from the central IRO, ensuring that their activities are in line with institutional priorities (Porntip 2004a, b). The report on Higher Education Internationalization Policy and Strategy by OHEC in collaboration with the European Union recommended that, to promote education internationalization, individual institutions should have diverse but cohesive thematic working groups on quality mobility as well as develop, implement, and evaluate institutional policies and strategies on internationalization relevant to their own context (McDermott 2013). Such efforts could be best led or coordinated by the central IRO.

Table 11.11 List of international colleges in Thailand

No.	Institution	Website
1	Asia-Pacific International University	http://www.apiu.edu/
2	Bangkok University International College	http://www.buic.bu.ac.th/
3	Burapha University International College	http://buuic.buu.ac.th/
4	Chiang Mai Rajabhat University International College	http://www.inter.cmru.ac.th/
5	Chiang Mai University International College	http://www.cmuic.cmu.ac.th/
6	Dhonburi Rajabhat University International College	http://www.dru.ac.th/
7	Dhurakij Pundit University International College	http://dpuic.dpu.ac.th/
8	Hatyai University Didyasarin International College	http://dric.hu.ac.th/
9	IAC Nakhom Panom International College	http://iac.npu.ac.th/
10	International College at King Mongkut's University of Technology North Bangkok	http://www.kmutnb.ac.th/en/ic.php
11	International College at King Mongkut's Institute of Technology Ladkrabang	http://www.ic.kmitl.ac.th/
12	International College of Mekong Region, Chiang Rai Rajabhat University	http://icmr.crru.ac.th/
13	International College, Suansunandha Rajabhat University	http://www.ssruc.ssruc.ac.th/index.php/en/
14	Kasetsart University International Studies Center	http://www.interprogram.ku.ac.th/newsite/
15	Khon Kaen University International College	http://www.ic.kku.ac.th/
16	Mahidol University International College	http://www.muic.mahidol.ac.th/eng/
17	Naresuan University International College	http://www.nuic.nu.ac.th/nuic2016/en/home/
18	Payap University International College	http://ic.payap.ac.th/
19	Pridi Banomyong International College at Thammasat University	http://www.pbic.tu.ac.th/main/
20	Prince of Songkla University International College	http://www.uic.psu.ac.th/
21	Rangsit University International College	http://www.rsu.ac.th/international/
22	Shinawatra [International] University	http://www.siu.ac.th/en/
23	Siam University International College	http://www.inter.siam.edu/
24	Silpakorn University International College	http://www.suic.org/
25	Sirindhorn International Institute of Technology at Thammasat University	http://www.siiit.tu.ac.th/home_en.php
26	Srinakharinwirot University International College	http://ic.swu.ac.th/
27	Sripatum University International College	http://www.spu.ac.th/intl/
28	University of the Thai Chamber of Commerce International College	http://ic.utcc.ac.th/
29	Uttaradit Rajabhat University	http://uruic.uru.ac.th/new/poster/brochure2.pdf
30	Webster [International] University	http://www.webster.ac.th/
31	YES (special case) – Assumption University	http://www.au.edu/
32	YES (special case) – Stamford International University	http://www.stamford.edu/

This idea was shared by Dr. Jack Van de Water (2013), a long-standing senior international officer at Oregon State University, a renowned expert in education internationalization who has been involved in modern era Thai education internationalization since its beginning.⁷ In his lifetime reflections on his international work published by the Harvard Education Press recently in 2015, he emphasized the role of IRO as a mainstream stakeholder and an influential partner for faculties and departments rather than playing a secondary role influencing only programs of marginal importance (Van de Water 2015). Being a key strategic unit requires the IRO to develop capabilities in:

Acquiring a good knowledge of the campus culture; building a competent staff; learning how and why decisions are made and priorities are set; and, reaching out to peers to understand their interest and how you [IRO] can influence their thinking (Van de Water 2015).

In fact, the IRO has to grasp promptly the signs of both internal and external changes which could have an impact on the institution's internationalization. Internal changes include changing administrations possibly introducing new ideas, a new organizational culture, and the shift of priorities. External changes could be the developing trend of global market demands, the national policies and new requirements, and rising global issues. It is the tasks of IROs to synthesize the essence of the changing movements regionally and internationally and make sure the whole campus is especially aligned on internationalization policies and strategic directions as well as help with financial, academic, and logistical support.

Similar to OHEC, IROs must not seek control over faculties and departments. To this point, Dr. Van de Water repeatedly stressed that the complete control of IRO would move faculties away from the international dimensions of their disciplines and will make the institution lose its opportunity to be more international. This is because faculties do much better in developing their own programs and expanding their personal networks. Therefore, IRO leadership should be empowered to be more influential in providing the three major supportive factors – ideas, funding, and services (Porntip 2004a; Van de Water 2015). As the central international office, IRO could serve as a hub for like-minded people focusing on international matters to discuss ideas, as a matchmaker for possible networking and allies, and as a “psychologist” fostering the sense of ownership and engagement among all institutional sectors. Ideas generated from proactive offices are much better than those from places where internationalization is perceived as a secondary marginal priority. Such ideas could lead to new initiatives pushing the institutions' agenda to the next level.

To encourage and support the implementation of new ideas, IROs must develop the ability to tap new sources of funding in addition to normal allocations – a function that guarantees their influential roles. Indeed, an IRO could also shape itself to be, as Dr. Van de Water put it, a major fundraiser. The IRO staff are, therefore, required to be skillful in gathering ideas, writing grant proposals, making presenta-

⁷Dr. Jack Van de Water was twice a Fulbright Scholar at the Ministry of University Affairs in 1993 and at Burapha University in 2004 on both occasions working on education internationalization.

tions, and networking with potential funding sources. With funding support, it is more feasible for faculties and departments to coordinate seriously with the IRO and will eventually move the whole campus in the same direction.

Undeniably, services are the major part of an IRO that link the office to other parts of the campus. Nonetheless, Porntip (2004a) encouraged IROs to consider more *value-added* services, which could not be successfully done or accomplished by faculty or departments alone, e.g., international study visit programs, international faculty recruitment, and orientations for international students and staff. On the other hand, IROs could also serve as a major point of contact, linking international institutions, potential partners, and students to the relevant departments within the institution. Needless to say, having one fact-based international office as the main office, particularly for the very first communications, will boost the institution's level of professionalism and unity.

Proactive IROs and capable staff will help institutions become more strategic, as well as more capable to grasp potential opportunities and manage resources effectively. Along with the need to empower IROs comes the task of properly balancing the centralizing and decentralizing approaches at the institution and faculty levels according to their specific contexts as well as enhancing consistency of policy implementation and effective endeavors with productive knowledge management in the longer term.

11.5 What Then Must Be Done?

11.5.1 Need for Leadership and Champions of Internationalization

Although being emphasized as one of the major QA criteria for performance excellence, leadership in the Thai education community has much room for improvement, especially as there are frequent changes in administration and experiences with frequent priority shifts due to political influences within institutions and government organizations. As changes are inevitable and unpredictable, government organizations and higher education institutions then rely on clear goals set in their key documents such as the National Education Plan in the case of MOE and OHEC as well as the vision and mission statements of higher education institutions. They also depend on different levels of leaders within the organizations to hold fast to their education internationalization goals and make it clear to all stakeholders that any changes should be geared toward those goals. Previous efforts should not be in vain or deserted simply because of the change of leadership but should be transformed/upgraded/developed to the next stage instead. The leadership transition period would be a time for the leaving and incoming leaders to discuss how to

continue most effectively the institution's internationalization efforts and engage even more actively. Continuity of education internationalization necessitates visionary and transformational leadership in every part of the organization.

Visionary leadership in Thai higher education was evident during the time before MUA became OHEC. Senior leaders of the ministry foresaw the merit of establishing a QA system to enhance the internalization process within the higher education community and, as earlier mentioned, launched an initial benchmarking project in collaboration with the Thai Medical Consortium and the Thailand Productivity Institute. After the 1999 National Education Act, the role of MUA/OHEC in QA has tended to be more routine and less proactive in contrast with the Thai Medical Consortium which has now become the leader of effective QA efforts in higher education with its members being key players in the QA task forces at their respective institutions. Visionary leaders then must also be transformational leaders in order to implement the vision for continuous development. That is the essence of dynamic and effective leadership.

Highlighting transformational leaders as one of the key factors for education internationalization, Dr. Susan Buck Sutton (2014) noted the importance of their ability to move whole institutions in the same direction with concerted effort.⁸ Such ability comes about through their forward-looking vision communicated throughout an organization in a way that energizes and motivates individuals to pursue change. The vision and a strategic set of actions need to be jointly developed by relevant groups, making them co-owners of change, while leaders make available knowledge, resources, and structure in order to support success. The visionary plus transformational leadership is needed to ensure that education internationalization efforts will move forward despite obstacles and that individual commitment remains constant through different organization administrations.

11.5.2 *Engagement of Millennials*

Surprisingly, students, who are the core of education internationalization, are not much engaged in the process. One major obstacle is the generation gap between students and *adults*. Students born after 1979 are grouped as the Millennials and are seen as alienated individuals and with a different culture in the eyes of the Boomers (those born around 1945–1964) and even the Xers (around 1965–1978). These Millennials might be regarded as possessing some unfavorable characteristics, but, at the same time, their potential being born in the digital environment is enormous. They are digital natives with great creativity, strong social networking abilities, teamwork skills, a volunteering spirit, and many more qualities. These qualifications, if strategically utilized, will contribute to the constructive development of

⁸Dr. Susan Buck Sutton was an expert from the USA in the joint project on education internationalization among OHEC, the US Embassy in Thailand, and Fulbright Thailand in September 2014.

education internationalization.⁹ Education institutions just need to find the right approaches to engage them. Different institutions might tailor different approaches depending on their specific context, but we believe all successful approaches are based on one key factor – cross-cultural understanding (Fry et al. 2017).

Although cross-cultural understanding is the underlying principle of education internationalization, the focus still is too much on diverse cultures among different countries – not among different generations – within nations or institutions. Generation gaps should be seriously taken into consideration, and cross-cultural understanding should be promoted campus-wide. Cross-generational face-to-face interactions and communication can be encouraged through outreach/extracurricular activities to promote understanding and respect for the differences.

Indeed, engaging Millennials in the education internationalization process is a win-win strategy. For administrators, understanding these individuals is to understand their customers and market needs/trend. For lecturers, involving them in teaching and learning processes is to enrich their resources/lessons and constantly update themselves with changing trends and knowledge. For these Millennials, being an active part of their own education helps unlock their potential, increase their sense of responsibility, and enhance their learning skills. Eventually, all will realize with increased appreciation how much each stakeholder, regardless of age and experience, has something meaningful and interesting to learn and share contributing to genuine internationalization.

11.6 Mindful Benchmarking

Benchmarking leading universities is one way to meet an international standard as it is a mechanism to promote organizational change and improvement. In fact, there are opportunities for Thai and international higher education institutions to share and learn from each other despite differences in systems, cultures, and contexts. Some kinds of benchmarking systems have already been adopted and should be revisited. Benchmarking is an effective mechanism to help educational institutions see, through others' experiences, how they can possibly adjust their own approach and of what they can do more – for improvement. However, it must be based on a clear vision, systematic knowledge management, thorough understanding of oneself, and the right match.

Along with the benchmarking process, educational institutions need to be aware of their own contexts, including strengths and limitations. Genuine and thorough

⁹Details about the Millennials with regard to education exchanges and cross-cultural communication are in “Managing M Exchange” and “Gen Gappers in Communication: Getting Wider and Wilder” papers, respectively, presented at the First Fulbright Internationalization Forum (FIF), November 15, 2012, at Pullman Hotel, Bangkok, and the Second International Conference on Language and Communication on “Dynamism of Language and Culture in Society,” organized by the National Institute of Development Administration, August 5, 2010.

self-reflective exercises will help prevent institutions from being unrealistic, too ambitious, and then getting lost. A number of Western educational institutions are considered *international* not because they use English as a medium of instruction but because of their teaching and learning approaches, up-to-date course design, student services, orientation, cross-cultural management, faculty support, research facilities, and effective networking. Simply changing the medium of instruction into English will not make an institution automatically *international*. This is a common serious misunderstanding here in Thailand.

Significantly, the benchmarking will not be useful if it is not the right match. With self-assessment and clear vision/goals, educational institutions must find their suitable counterparts. In this case, they must not overrate nor underestimate themselves – they must be realistic. At the same time, they must discard any previously established bias. Not all institutions can play in the same league. Moreover, benchmarking choices could also go beyond similar types of institutions to community colleges, technical schools, or even private companies and foundations in some specific aspects of their services. Focusing on their strengths, strategic directions, and the institutions' learning goals will be the best way to ensure productivity in learning and sharing, while cooperating with smaller and less known institutions could equally be advantageous.

11.7 Lintegration

Fragmentation efforts have hindered Thailand's education internationalization and worsened responses to other important challenges. Unaware of what has been done/achieved within and outside campuses, higher education institutions miss opportunities to do more with less resources/efforts and time spent. In the same way, the inability to track similar/compliment endeavors and encourage possible cooperation within the higher education community causes the MOE/OHEC to fail to nurture the nation's education internationalization through the promotion of unity and conformity (see Pad and Rattana 2017). To ensure that no opportunity is missed and harmonization is forged, *lintegration* (*link + integration*)¹⁰ skills must be developed at the organizational and individual levels.

That is to say, each level has to develop the abilities to *link* opportunities for sharing resources and joint cooperation and *integrate* this linking ability to various tasks. All the stakeholders in education internationalization including government bodies, higher education institutions, faculties, departments, and staff are encouraged to see themselves as part of the big picture and think beyond their scopes of work in order to *lintegrate* education internationalization. At the institutional level,

¹⁰The word *lintegration* (coined from “link” and “integration” to remind the Thai community to maximize their links to enhance wholesome learning) was proposed by Fulbright Thailand in 2013 at the 2nd Fulbright Internationalization Forum (FIF) on September 9, 2013, at the Faculty of Education, Chulalongkorn University.

this could start with the prioritization of individual assignments and identification of institution-wide link possibilities within the institution's macro picture. Quality indicators on internationalization processes have to be developed and included as an essential part of the core mission. Then, individuals can *lintegrate* their prioritized assignments into the larger picture, beginning from smaller steps (Porntip and Chotima 2014).

At the individual level, *integration* encourages “integrative thinking” and learning patterns for thorough learning that includes global issues at the top, depth of knowledge represented by the vertical line, and life/cross-cultural/thinking skills on the base of the character. To be able to *lintegrate* Thailand's education internationalization, all individual OHEC staff needs to develop *integrative* thinking and learning patterns. It is important that OHEC should develop broader and more multidimensional thinking than typical education institutions.

At the national level, OHEC could assume the facilitator role in fostering cooperation among all relevant policy makers and higher education institutions to develop a system in which lessons could be shared and similar efforts could be combined. *Lintegrated* knowledge management and joint forces will not only guarantee greater impact but will also become a stronger push for Thailand's education internationalization to move ahead in a stable and sustainable way.

11.8 Thailand's Education Internationalization: To Be Continued

Thailand's education internationalization has been actively promoted in the past decades. The numbers show impressive development, though they still need to be further analyzed in order to reflect more on the *quality* dimension – the key to a successful internationalization process. The path toward quality education internationalization necessitates the alignment of policies and implementation to move within some broad framework, with consistent elements, and in one direction.

In fact, the foundation has been laid. Previous discussions locally and internationally seem to agree with the general definition of education internationalization proposed by Jane Knight who noted that it is “the process of integrating an international/intercultural dimension into the teacher, research and service functions of the institution” (Knight 2003). To be more specific, Professor Kasem Wattanachai (see Appendix II), the former permanent secretary for University Affairs and privy counselor, and Professor Thienchay Kiranandana, former president of Chulalongkorn University and the current chairman of the National Reform Council, suggested that Thailand's education internationalization be linked with the promotion of a knowledge-based society in a way that the internationalized university “creates, collects and disseminates the body of knowledge” (Thienchay cited by Porntip 2003). The two frameworks could be combined as a guideline for overall Thai education internationalization efforts.

Through a common framework for higher education internationalization, individual institutions should be allowed to decide the details of their own goals and be supported by the ideas, funding, and services facilitated by IROs as already discussed. Along the way, both OHEC and higher education institutions (mainly coordinated by IROs) would have to monitor closely the process ensuring that the internationalization process moves in the same direction at the national level. While OHEC provides strategic support including linkages and networking facilitation, institutions may seek to integrate EdPEX elements into their systems ensuring that effective and harmonious performances eventually lead to real quality in the internationalization process.

Most recently, OHEC has issued its policy for higher education institutions to choose an IQA system that is recognized, EdPEX included (BSE 2014). As of September 6, 2016, EdPEX has been adopted for assessment either at the institution, or faculty, or both levels by numerous institutions. They include 4 universities for their institution-level assessment, 43 faculties from 11 universities, and 5 universities along with all their faculties for assessment. Furthermore, OHEC itself has continued its project to assess participating faculties/universities voluntarily if they could reach the scores of 200 to set the start for more qualitative improvements toward performance excellence. In addition, OHEC has initiated a 5-year plan (iCAD – Action Plan Model) under its project, which literally means “Plan to Move Forward Education Quality Process with the EdPEX Framework” to encourage the whole university community to pay increased attention to EdPEX and to learn how to put it into actual actions.

BICS-OHEC has also completed a project jointly implemented with the European Union. A short-term senior EU expert was assigned to work with BICS-OHEC to enable Thai universities to measure their internationalization performance and relative improvement (OHEC 2015 and OHEC 2015a). Despite a 38.8% response rate (59 out of 150 institutions responded), the findings revealed that there was heightened understanding of the importance of developing and implementing an internationalization strategy. However, only 40.6% of them had a policy of measuring the outcomes of their internationalization initiatives, while 44% did not indicate that there was a QA system in place for international programs.

Furthermore, BICS-OHEC has been working closely with SEAMEO-RIHED to set the stage eventually for the introduction of “Internationalization at Home (IaH),” which will allow the critical mass of students without exchange opportunities to acquire some indirect experiences from rich exchange resources readily available on the campus and in the region.

It is hoped that these latest efforts will enable participating universities/faculties to include internationalization as part of their overall quality assessment process for their institutions to become truly internationalized. As the Thai higher education community has been attempting to engage itself within and beyond its own circles to keep abreast of accelerating global forces and learning to maximize fully the many benefits that can accrue from creative international and intercultural partnerships, the internationalization and quality assurance processes could eventually be truly integrated.

Yet, how all these could actually be achieved and integrated is another story to be continued.

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Part III
**Major Educational Issues: Inequalities
and Disparities**

Chapter 12

Education of the Disadvantaged



Her Royal Highness Princess Maha Chakri Sirindhorn

Abstract This chapter identifies comprehensively 15 educationally disadvantaged groups of individuals in Thailand. The detailed profiles of these groups provided derive from my direct experiences in educational development and my traveling to all the major regions of Thailand over the past three decades. The chapter begins by providing some important context touching on my thinking on education, different teaching and learning styles, and the nature of our school system. The 15 disadvantaged groups identified in this chapter are people in disadvantaged remote areas poorly served by mainstream educational services; people with no money to study; people of limited intelligence; inpatients; people with physical or mental disabilities; orphaned children; children of transient people, e.g., construction workers, migrant laborers in agriculture, people living in houseboats, and fishermen; prison inmates; street children; child laborers, soldiers, and sex workers; those with no opportunity to study during childhood; refugees, illegal immigrants, and people lacking nationality; individuals who do not value education; students who do not understand the language of instruction; and highly gifted students in some circumstances. Each group is described in detail, and there is a discussion of what can be done to provide educational opportunities for these diverse disadvantaged groups.

It is recognized that education is a fundamental human right. Many efforts were made to strengthen education between the 1990 World Conference on Education for All held in Thailand and the 2000 Dakar World Education Forum held in Senegal. Many goals were set – and have yet to be achieved. Today, there are still almost 900 million illiterate adults in the world. They comprise 1/5 of the world’s adult population – and 2/3 of them are women. Of these, about 70% are in the Asia and Pacific region. There are also a large number of illiterate youth and children in the region part of the estimated 113 million children of primary school age in the world who are still not in school. And even for those who do gain access to school, many of them will finished their education barely literate. These children are among the poor, members of ethnic and linguistic minorities, children with

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disabilities and affected by HIV/AIDS, and those who live in rural areas – and most of them are also girls. Such children, as adults, will never be able to master the impact which developments in information and communication technologies and the growing global economy will have on their communities and on their lives (UNESCO Foreword, Sirindhorn 2004).¹

12.1 Education of the Disadvantaged

The focus of this chapter is education for the disadvantaged of all ages. This is a challenging topic, which is also extremely broad.

12.1.1 *Groups of the Disadvantaged*

I have identified the following 15 disadvantaged groups:

1. People in disadvantaged, remote areas, poorly served by mainstream educational services.
2. People who cannot afford to study.
3. People of limited intelligence.
4. Sick or undernourished people who do not have strength to study and work.
5. Individuals with physical or mental disabilities.
6. Orphan children.
7. Children of transient people, e.g., construction workers, migrant laborers in agriculture, people living in houseboats, and fishermen.
8. Street children.
9. Child laborers, soldiers, and sex workers.
10. Those who lacked the opportunity to study during childhood. Once beyond school age, the ability to learn may be reduced.
11. Prison inmates.
12. Refugees, illegal immigrants, and people with no citizenship.
13. Individuals who do not understand the language of instruction.
14. People whose social context does not promote education. For instance, in some societies many believe that women do not need any study or that grown-up children should work rather than study.
15. Those who have advanced ideas and great intelligence. Teachers, not knowing how to teach such children, may get upset and not want to teach them.

¹This chapter is based on the book *Education of the Disadvantaged: A Lecture*, translated from the Thai, Kansueksa khong phudoiogat, a lecture by Her Royal Highness Princess Maha Chakri Sirindhorn at the 15th Annual Princess Maha Chakri Sirindhorn Day, at Srinakharinwirot University (Prasarnmit), November 12, 2001. The book was published by UNESCO Bangkok in 2004 with a foreword by Dr. Sheldon Shaeffer, Director of UNESCO Bangkok.

These groups are usually excluded from the mainstream of education in a conventional sense. Therefore, education for them requires special techniques and additional funding. Some of those responsible for education may know how to handle them but may have insufficient funding to do so.

12.2 Thoughts on Education as Important Context for This Chapter

In the first chapter of this book, I earlier defined education in the Thai context, tracing it back to its Pali and Sanskrit roots. Before elaborating on the 15 groups of the disadvantaged, I would like to share some additional thoughts about education in general.

Education is a process of providing an individual the opportunity to gain knowledge and qualities enabling that person to survive and be useful to self, family, and society. Education begins first in the family. It builds personality and improves the quality of life. It mainly includes learning the skills of daily life and necessary development such as speaking; eating; walking; dressing; working in the household such as cleaning, sewing, mending, or fixing things; and learning about parents' work. For example, farmers, fishermen, and craftsmen often bring their children along with them while working. The children of medical doctors, soldiers, and business people also observe and imitate what their parents do.

Currently children may view their parents' jobs as boring and therefore want to pursue other careers. This may happen when parents own big companies, but their children do not want to work in those organizations. If the parents expect their children to inherit their business, it may be painful for the children. This is the situation today; whereas in the past, children tended to follow their parents' paths. They should be allowed to make their own choices. A further problem in today's society is the wrongful use of child labor in the household. The family should also be a source of moral education and social values. Children develop important habits within the family. I was born in a family where my parents enjoyed reading and learning. So I too developed the habit of loving to read and learn.

As a society develops, those who would like to develop themselves must be educated beyond knowing how to grow rice or catch fish. Some families may be able to educate their own children, but most have to seek education from others. In the old days, this education was most often provided by monks. I observe that Thai people have an attitude of leaving their homes to seek knowledge, as seen in Thai performances such as *like* (ลิเก) (a Thai traditional folk play) and *lakhon ling* (ละครลิง) (monkey play). The leading characters in these stories grow up and seek teachers who are mostly old monks or hermits. On their return from their studies, the characters often engage in adventures. This may also demonstrate the value of searching for knowledge, especially that which fulfills one's needs. There may also be value in studying far away from home so that one can become independent and take care of oneself,

especially during the search for the right teacher. This is the concept underlying His Majesty King Bhumibol Adulyadej's Phra Dabot (พระดาบศ) School,² which is already well known and documented.

12.3 Different Teaching and Learning Styles

In my observations of teaching, people in the past understood the various kinds of intelligences and environments among different people. Good teachers knew what their students were like and taught them accordingly. In Buddhism there are many stories illustrating this. Allow me to elaborate on some examples.

In the commentary of the *Dhammapada*, there was a monk named Phra Culapanthaka who had limited intelligence and was a slow learner. His elder brother, who had been ordained as a monk at the same time, had already reached the arahant stage. He tried to teach his younger brother to memorize just one poem but was unsuccessful regardless of how hard he tried. Finally, he gave up and told his brother to leave the monkhood to be a layman. Later, Phra Culapanthaka had a chance to meet the Lord Buddha. The Lord instructed this person, who could not remember even one poem in 4 months, to memorize only four words. While citing the words *rajoharanam° rajoharanam°* (โรหธรรม° โรหธรรม°) (meaning a dust cloth) repeatedly, he was instructed to wipe his hand on a piece of white cloth over and over. Dirt accumulated on the cloth as he wiped. He then realized the truth of life. Life was like a white cloth. It had been white until defilement was attached to it. Through this kind of reflective thinking, he reached enlightenment.

Of 40 stated methods of Buddhist practice, students can choose the approach that is appropriate to their nature. This demonstrates how teachers should teach with respect to the diverse backgrounds of their students. There are many other interesting stories in Buddhism for educators to study (see Chap. 3).

Some people may have a good background and knowledge, but they may be disadvantaged in other aspects. There is a story of the monk who suffered from a skin disease. Then the Lord Buddha went to visit him. The Lord cured the lesion and taught him about the foulness of the body. The monk reflected and reached enlightenment before he entered nirvana.

In the case of Patacara or Patacara Theri, she also attained the stage of *arahant*. Before that, she had lost her parents and children and had been through several natural disasters until she went insane. She met the Lord Buddha and was instructed to find some cabbage seeds from a family in which no member had ever died. She looked and looked but never found one. She decided by herself that death and loss were inevitable. Instead of pining, she sought ways to solve her problems. This insight guided her toward enlightenment.

²Phra Dabot School is an informal vocational school, initiated by His Majesty King Bhumibol Adulyadej in 1975, offering a variety of vocational and technical training courses, such as mechanics, electronics, carpentry, agriculture, and elderly care, taught by volunteer teachers.

Angulimāla is another story of the disadvantaged. He had met a bad teacher who was jealous of his intelligent student. The teacher tricked the student in order to rid himself of future competition. He instructed his student to kill people, hoping that some day the student would fail and get killed or be executed. The Lord Buddha waited for Angulimāla to attempt to kill him. Angulimāla tried to kill him but could not keep pace with the Lord. He then shouted to the Lord to stop. The Lord said, “I did stop. You are the one who does not stop.” This phrase amazed Angulimāla, and the conversation turned to the topic of sin. It was a turning point for Angulimāla, and he later became enlightened.

Rupananda, a female monk, was a perfect lady except for one defilement that prevented her from reaching enlightenment. She was deluded and attached to her beauty. The Lord Buddha taught her to visualize a beautiful lady. The visionary lady gradually turned old, died, and then decomposed. This was an important lesson for her in overcoming her excessive vanity.

These are examples of many methods and tips available from reading Buddhist texts. I recommend the book *Anubuddhapravati* written by Somdej Phramahasamanachao Kromphraya Vajirananavarorasa in 1920 and republished many times as a good source for the study of education through the history of the disciples of the Lord Buddha. I read it when I was little, and I liked it so much.

In the old days, most famous teachers who had many students were Brahmins. They were called *Brahmin mahasal*, where *maha* (มหา) means big, and *sala* (ศาลา) means school. Therefore, *mahasala* (มหาศาลา) means big school.

12.4 The School System

As society expanded, it became necessary to have a school system in which the teachers’ main duty was teaching. They taught students step by step according to each student’s talent. As the population increased, more rules about curriculum, evaluation, and student admissions were developed. Teachers now have less time for individualized instruction, and there are more considerations about budget and cost. System leadership and management have become a critical factor in achieving educational objectives (see Chap. 22). The people of a nation have to be educated to certain standards. In fact, the main aim is to educate average citizens – that is, education is mainly for the mean, the majority. Disadvantaged groups lie on the slim sides of the normal curve. They are at the margins of society. To improve the situation for the disadvantaged requires moving the normal curve to the right or increasing the overall academic level to a higher position so that all benefit from the improvement of the average group.

12.5 Groups of the Disadvantaged Described

I now discuss the 15 disadvantaged groups from my own experiences in education. Educators cannot solve all problems because some solutions lie outside the formal education system. Nevertheless, educators have to explain to others, exchange views, learn from others, and convince them to solve the problems to achieve educational objectives.

12.5.1 *Group 1: People in Disadvantaged Remote Areas*

This group includes those living in areas difficult to access or far away from major transportation routes. Sometimes the isolated areas may have a good standard of living, but mostly they are deprived economically by virtue of their inaccessibility. Rich land usually attracts people who then build transportation routes and no longer live far away from these lines. However, areas still exist that are very difficult to access. Some children may take much of the day to go to school even where there are reasonably good roads. In areas like this, many teachers do not stay long because they suffer physically and mentally from social conditions and a lack of amenities. As a result, there is a serious shortage of teachers in these remote areas. Sometimes teachers want to go there, but there are no civil service positions available for them. In other instances, teachers go there just to take positions and then request a transfer to other places, thus taking those positions with them. This once again leaves remote areas with a major problem. In cases where there are no positions available, temporary teachers must be hired. In some places the hired teachers are paid, but in others there may be no money to pay them. A further problem is when there are no applicants for temporary jobs.

For many years I have paid for many temporary teachers. This is not difficult. For example, if a school wants to hire a primary school teacher, the Provincial Primary School Office can select one teacher to take the job. I simply transfer the money to the office to pay for the salary. The difficulty is that while I had intended to support three teachers, they reported that they were short 400 teachers.

The Ministry of Education can function as the center for people who want to donate money for this purpose. I have asked those who donated money for the construction of schools whether they would be willing to donate money instead to hire teachers. They answered “yes” if they were assured that the money actually went to the teachers. At the university level, similar donations for visiting professors acknowledging the names of the donors have proven successful. The same system can be implemented for primary school teachers.

There are already some teachers hired from funds or loan money provided by government agencies or by individual donors, but there is still a serious shortage of teachers. Community learning centers such as the Thai Hill Tribe Community Learning Centers also need teachers. These centers have not yet reached the status of a school. Teachers in deprived areas work very hard. They teach and do many other things. I once found two teachers teaching eight classes from kindergarten to

Grade 6. They also cook for their students and coordinate with helpers to do the cooking.

The new system allocates more government funding to local authorities at the subdistrict level (Subdistrict Administrative Office). Some authorities manage it well by coordinating with people in communities and delegating authority to others. Teachers can receive help from parents and agriculture officials. Teachers can also take care of their students' health concerns.

In some schools the children do not have enough rice to eat. Children come to school for rice. I have had to provide them with rice, and I have instituted a program in which students learn by doing (agriculture for lunch) (see Fig. 12.1). Teachers manage the situation quite well and also receive help from public health officials. I once met a border patrol policeman who held a baby in his arms and said proudly that he himself had delivered the baby. However, this example should be taken as an extreme case. Normally when public health personnel are not there, traditional midwives are available and can deliver babies. Some midwives have never been trained, so they might do it not quite up to the hygienic standards. In this case, training is helpful to teach the midwives about hygiene. Maybe it would be easier to train the teachers first and then they can pass on the knowledge about cleanliness to midwives.

In many places there is a shortage of teaching materials such as textbooks and reference books for children and teachers, television programs via satellites, and computers. By coordinating with local people, potential donors can at least help reduce the difficulty of educating disadvantaged children. Furthermore, periodic teacher training is helpful. Older children can also teach younger ones; for example, those in Grades 4–6 can teach first graders. It is said that this system works well. If the older children can be trained to teach, perhaps they can help.



Fig. 12.1 Learning by doing, agriculture for school lunch program (Photo courtesy of Her Royal Highness Princess Maha Chakri Sirindhorn's Personal Affairs Division)

In other disadvantaged areas, children do not have a chance to study. There are no schools for several reasons. For example, some children live in forest conservation zones where schools are not permitted. Others may live so far away that no teacher wants to go and teach them, or there may be too few students to make a school economically feasible. It is not cost-effective, and so this has led to the closing of some schools. In this case there is a project to bring children to schools far away from their homes. This has proven to be very effective.

Some parents are very eager to help build schools. Other parents helped build rice storage facilities for their children at school. I once visited a school in which there were many children, with over 100 children in kindergarten. The parents were Hmong, and they had built camps to lodge their children. They took turns, two at a time, taking care of the children. These parents wanted to help the teachers. The weak point was that the children lacked family warmth. Further, their local and traditional cultures tended to be absorbed by the new culture introduced by the teachers who were mostly from outside the area. Nevertheless, this is better than not studying at all. Family warmth can be compensated for by teachers' attentiveness. The good point is that the children had a chance to learn and practice helping themselves.

In many places that I have visited, I have observed that remote schools tend to have more dormitories for girls than for boys. The reasons for this are not yet clear. Perhaps the boys must help out at home. I have offered scholarships to the boys, but they often refuse and claim that they must stay home to help their families. In rural Cambodia, I was told that male students can live in a temple, or with another family, but female students cannot. Some of the girls were very capable and built a small shack next to their school. Dormitories are helpful to attract more children to schools, even though the problem of separation from their parents remains. Although no system is perfect, we must choose among various solutions and different opinions.

The 15 groups of the disadvantaged exist in all countries, not just in Thailand. Education in remote disadvantaged areas, where there is a shortage of teachers, has always lagged behind that in urban areas (see Chap. 14). The other day I met a student from a remote area who is studying at Srinakharinwirot University. She said that she was very happy there and the professors took good care of her. She had good friends, and the courses were interesting, but she had a hard time following some classes. The most difficult part for her and her friends was learning English. In this case, they need special tutors or tutorial classes during summer vacations, and we can ask people to help.

I recently met the director general of the Department of Non-Formal and Informal Education at a community learning center. He remarked that the problem in the disadvantaged areas was that there was no continuity of teachers. Yet they cannot be stopped from departing. I think we have to establish a system for departing teachers to hand over their work to new ones. We have to solve each problem as it occurs.

Distance learning via satellites may be very useful for some disadvantaged children. From my observation, however, some children cannot concentrate when they learn from TV monitors. They do poorly in examinations. Then I asked them why. They said it was because learning from a TV was not the same as studying with a live teacher. I told them that they must find some techniques to learn by this method. I suggested they and their teacher compete in note-taking and later compare and

review their notes. Some claim that memorization is not a good learning technique, whereas focusing on thinking skills helps people become wiser. I think revising lessons over and over is good for the group with average intelligence, just like Phra Culapanthaka, who was enlightened by continuously wiping the white cloth. Some slow learners cannot keep up with others if they do not review their notes. I also found some students who liked distance learning more than learning with teachers in person. The disadvantaged are eager to learn and try harder when they have a chance to learn, even with distance learning methods.

12.5.2 Group 2: People with Inadequate Funds to Study

At present, many organizations here and abroad help find sponsors to support this group. In China, there is a project called Project Hope to provide opportunities for children who otherwise do not have a chance to study. They make announcements and advertisements to seek those who are interested in donating money to the Ministry of Education. Some donors are laborers and some are housewives. They do not have to be rich people. The project aims to match each donor with a child. The donor gets to see the child's photograph and receives letters from the child. Some donors support the children all the way to higher education. In some cases, there are loans for education. Even though public schools are now free, but accessories such as required clothing, education materials, and food are expensive. Those who cannot afford these necessities may not be able to study.

12.5.3 Group 3: People of Limited Intelligence

For this group, appropriate teaching techniques are the solution. There are many types of individuals with limited intelligence. Eventually there may be cases where we should direct them to do things that are most suitable for them. We have to talk more about the guidance provided for students to make appropriate educational choices and to select careers that are appropriate for their level of intelligence. Thus, I am very pleased that we are developing the field of school counseling.

12.5.4 Group 4: Inpatients

Today, many hospitals have study programs available for children with chronic illnesses. Many of their teachers are from the Department of Non-Formal Education.³ At present there are many teaching aids to help teachers with students at different levels. But the management of such teaching is difficult because some students are

³Now it is the Office of Non-Formal and Informal Education under the Office of Permanent Secretary, Ministry of Education.

Fig. 12.2 Providing IT for sick children in the hospital (photo courtesy of Her Royal Highness Princess Maha Chakri Sirindhorn's Personal Affairs Division)



too sick to learn. During economic downturns, young patients may have to leave the hospital sooner and rest at home regardless of how chronic the illness is. This interrupts their education.⁴

I used to help in a hospital computer learning program and experienced the difficulty of that situation (see Fig. 12.2). Once the patients left the hospital, they were forgotten. The hospital did not have a large enough budget to support them. Nevertheless, those who took the lessons learned quite well. There are also cases of nutrition deficiency which I have discussed many times previously.

12.5.5 Group 5: People with Physical or Mental Disabilities

Currently, this group has more opportunities for education (see Fig. 12.3). There are various special techniques to access knowledge or to prepare people with disabilities for learning. Sometimes it is not just about teaching techniques, but it involves advanced preparation of appropriate facilities. For example, the blind cannot easily walk up the stairs of a university. They have to learn to balance themselves, know directions, and learn to help themselves. Those who have already trained themselves will not have problems. Problems persist because facilities for the disabled are costly.⁵

When I visited New York City about 2 months before the terrorists' attack, I met a person with a well-functioning brain, but the rest of her body was immobile. Her eyes shone, reflecting her feelings, although she could not even breathe by herself.

⁴At present, the Ministry of Public Health provides the budget to hire teachers and to buy equipment to help this group. The project received an award from the United Nations in 2015.

⁵With modern equipment such as computers, the disabled can learn to live "independently," empowering themselves to study, work, play sports, or enjoy recreational activities in their daily lives. There are many effective rehabilitation tools currently available to assist such individuals.

Fig. 12.3 IT for the disabled (photo courtesy of Her Royal Highness Princess Maha Chakri Sirindhorn's Personal Affairs Division)



She had graduated from Harvard University with the help of many machines. Such equipment is very expensive and not available for everyone. She is a good example of a person in a difficult situation who does not give up. Also the blind, for example, have particular potential in fields such as music, language teaching, and therapeutic massage.

I have seen many places where it is difficult to go to school. Although there are now wheelchairs, the roads are not designed to facilitate them. I once donated bicycles for children to ride to school. I followed up the project to find out whether the bicycles were used or not. They asked "How can I use them? The road is full of mud all the way. I'd rather not carry my bicycle." You can imagine how impossible it is for those in wheelchairs.

In many places, teachers do not have the skills to deal with people with disabilities. If teachers were properly trained, it would be helpful. But one district may have just one or two disabled students, so the question is whether or not this particular teacher training is cost effective. But it has to be done soon because it is very helpful. I once met a very good teacher at one school. She was kind to her one disabled student, who seemed happy and well taken care of, but the teacher taught the child nothing because she did not know how. In another incident, there was a big child at a preschool center. The child did not seem mentally impaired. I thought he was just a gigantic preschool child, but in fact he was 7 or 8 years old and deaf. The school did not admit deaf children, and his parents do not know what to do. He was put in the preschool because he was accepted there. He should have been put in a special school, but his parents were worried about sending him far away to study. There are solutions available for people with physical disabilities, but for people with mental disabilities, the problems are more complex, more difficult to solve, and operate at various levels. For example, there were cases of good students who had seizures when sitting for exams.

12.5.6 Group 6: Orphans

The Suksasongkroh Schools (Welfare Schools) can help this group immensely. Teachers in these schools must also be trained to function as “substitute” heads of families.

12.5.7 Group 7: Children of Transient People

The parents of this group, such as construction workers, do not have permanent jobs. There was once construction at the palace, and I observed children running around unsupervised. I arranged for them to have baths, organized a class and a teacher for them, and had their health checked by the palace doctors. Their parents and the children were pleased. The children were lovely and happy with the snacks that they were given. In this group, some were grown enough to go to school, but they did not study because they had to follow their parents each time they moved to a new construction site. I put them in the Bang Gruay Suksasongkroh School, which had been built originally for children whose families lived on boats and moved about to earn their livings. With the decrease in the number of families living on boats, the school is now open for all children from poor or struggling families. They can live in dormitories or houses at the school. Some can live with their relatives who do not move about. Some government or nongovernment agencies arrange for teachers to teach at the sites where the parents work. It works out fine for children of construction workers, but for others, such as laborers in sugar cane farms or other agricultural settings that are more widely dispersed, it is difficult to manage in this way.

12.5.8 Group 8: Street Children

The Red Cross Federation has asked the Thai Red Cross to take care of this group. They are considered a marginal population and a group at risk. We may help by giving them shelter and developing better living conditions for them.⁶

12.5.9 Group 9: Child Laborers, Soldiers, and Sex Workers

It is not right to let children do the work of grown-ups. This is condemned all over the world because child laborers are often harmed mentally and physically by such work. They also lack an opportunity for an education that could improve their lives.

⁶At present, street children who cannot return home can stay at provided shelters, where there are staff to help them. There they can study and/or be trained for work.

Solutions include putting the employers in jail or boycotting products made by child laborers. Many people do not agree with these methods of control because some children have to earn money to support their families. If they do not work, their families suffer and they may resort to worse actions. Perhaps there should be a compromise. Children who earn money for their families should be provided with education, recreation, and improved working conditions.⁷ In most factories, laborers have an opportunity to enroll in nonformal education to upgrade themselves for better jobs and better pay. This may be more useful to them than leaving their jobs to go to school, especially in the present economic conditions in which they may lose their job opportunities.

Children who have been recruited to the military or forced to become sex workers must be helped by educators to recover their mental health.⁸ Thai Government has never allowed child soldiers, but I witnessed one in a deprived area almost 30 years ago. He had already died when I learned about this. His parents had faked the child's age so that he could volunteer. The official had not checked his birth certificate carefully, and the boy became a ranger soldier to earn his living just because his family did not have enough to eat.

12.5.10 Group 10: Those with No Opportunity to Study During Childhood

Nonformal education or adult education can help this group a great deal. These people had to help support their families during their childhood and so did not continue in secondary school or dropped out of primary school. They now have opportunities to study through educational programs provided via radio, television, the post, public libraries, and computer aided instruction (see Chap. 8). Teachers can also study computer skills. The elderly now have a chance to learn about the Internet, sometimes taught by children. I once sponsored a computer training course, in which a trainees are allowed to bring their children. Children learned about computers faster than adults, and thus they could help their parents at home. Currently there are many new subjects that even highly educated people in the past did not know. Knowledge advances very quickly, and everyone should have an opportunity to study throughout life. The subjects need to be open to all and taught at all levels. This is lifelong education for all.

Once I met a man who had never gone to school in his childhood. He was the son of a communist insurgent during the cold war. When there was no fighting, he could then study through nonformal education from primary education to the high school level. Later on he graduated from a Rajabhat University and became a *kamnan*(กำนัน),

⁷In fact, many jobs can help children gain knowledge and career skills, for example, farming, weaving, and handicrafts, but children must still also have education.

⁸Currently the Ministry of Social Development and Human Security takes care of the child sex worker problem. The victims are provided services such as shelter, education, and medical care.

subdistrict head. Adults may not have as good a memory as children, but their knowledge and experience can help them be effective learners.

From the sociological viewpoint, one's life usually follows a linear order, starting from attending school in childhood, growing up, getting a job, starting a family, and raising children, but life from now on will resemble a nonlinear patchwork which has no particular order. Working and going to school, training while working to improve work skills, or studying and raising a family at the same time will be normal situations in modern society. Those who are responsible for educational management have to adapt to these changes to provide opportunities for these diverse groups. In the past, some drafted soldiers could neither read nor write. Primary education in Thailand has since been improved and extended to the whole country. This has made it easier for drafted soldiers to take nonformal education lessons to finish their secondary education while they serve in the military. They are also trained in vocational education before they leave the military. Whatever the economic or budget situation, the policy is still there to provide educational opportunities for soldiers at all levels. To be promoted to the next high rank, training is necessary. This is also an important system of lifelong education.

12.5.11 Group 11: Prison Inmates

Prison inmates usually receive their basic education in prison and can pursue higher education in certain educational institutes, for example, Sukhothai Thammathirat Open University. The commencement ceremony is then held in the prison. My friend who had taught in the prison told me that students in the prison paid more attention than those she taught in regular schools. This might be because they are not distracted by other things. The problem remains that they still have difficulties finding jobs when they leave the prison. Employers are still afraid to hire them, particularly those convicted for murder. While facing these disadvantages, they are still very proud of their education, and this nourishes their hearts. They also have an opportunity to initiate their own small- or medium-sized enterprises. Child inmates without significant criminal records are not as serious a problem.

I have experience helping prison inmates with computer education. It works well because they pay much attention. They can even earn money while in jail from their computer work such as printing business cards and typing manuscripts for which they are paid according to the number of pages they type.

12.5.12 Group 12: Refugees, Illegal Immigrants, and People with No Citizenship

Refugees and illegal immigrants are similar, yet their status is not the same. Those who have refugee status receive special opportunities and treatment from the United Nations High Commissioner for Refugees (UNHCR). In many countries, including

Thailand, there are also illegal immigrants, not recognized as refugees. The countries which accept illegal immigrants may not allow them to go to school.

Migration is a big issue. There is migration caused by both natural and human-made disasters, which may be even more dangerous than natural ones. The most serious case is migration to another country to flee the violence of wars. Last year there was a conference to commemorate the 50th anniversary of the Geneva Convention on International Humanitarian Law. The sensitive issue of displaced people was also discussed. Any organization working on this problem must first respect these refugees as human beings.

UNHCR is the UN organization that takes care of refugees. It has established the Refugee Education Trust that aims to help refugees access secondary and higher education. I have discussed this issue with Madame Ogata, the former High Commissioner of UNHCR. She invited me to join, and I accepted. To reach the goal, we must overcome the problem of financing the project. There is also a concern about the educational policies of host countries that may not agree with those of the UNHCR.

The reason we should give educational opportunity to immigrants – besides access to education being a fundamental human right – is because they may have witnessed war and are affected mentally. In turn these people may create difficulties with negative effects on society. There is a saying, “Education provides the opportunity to choose; the opportunity to choose peace.” We have many problems currently because people choose to fight rather than to live in peace. If they receive education, they have an opportunity to choose peace. You can donate or find more information from the website, www.unhcr-50.org.

I had experience working with refugees when I finished my undergraduate study and began working at the Thai Red Cross. The organization aims at helping all people regardless of nationality, socioeconomic status, or religion. At that time I was just 23 or 24 years old. I felt caught in between the Red Cross mission to help all and the question why we should help so many Cambodians, Lao people, and others, while many Thais themselves remained poor without access to such services. Some people also feared that so many refugees might cause problems of national security.

In education, we tried to compromise and did our best, but whatever we did was not up to the UNHCR standard. Even Thai people at that time did not get much assistance because of limited resources. The UNHCR has its own curriculum. The required textbooks were very expensive and thus not accessible. At that time I contacted Chanthaburi Teachers Training College, now Rambai Barni Rajabhat University, to help out with the curriculum. It was sufficiently good. The aim was to give these students enough knowledge that would enable them to adapt well in a third country. The result was quite satisfactory, and it did not cost too much. Some refugees received better education than they would have in their own countries. For example, poor people or women who otherwise would not have had educational opportunities could study in the refugee camps, and they wanted to further their education to a higher level.

I would also like to discuss the group of people who live along the border of Thailand. Some do not have citizenship. Often it is difficult to prove their nationalities. They say they were born in Thailand, but they do not have documents to prove it. They are unable to receive any government services. I visited some sites and provided teachers, but it is prohibited to issue any certificates to such students. The newspapers once reported about a teacher who went to teach them and was subsequently reprimanded by his superiors.⁹

As the situation has improved, they have been able to study from primary to secondary and vocational levels. Some could even get into universities, but some were refused by all institutions. In this case I tried to provide vocational training for them. At least they could earn their living sufficiently. Some lived in protected forest areas in which school buildings were not allowed. A few days ago, someone told me that he wanted to donate money for school construction. The Forestry Department refused on the grounds that they must protect forest for the benefit of the whole country, not just that of one community. Perhaps there has to be some adjustment to the policy of the defined proportion of forested area or the banning of construction in areas sloping over 30°. Perhaps there should be a compromise for school construction or a transfer of people to a more appropriate area. But in some cases, it is impossible to move people out. There must be dialogue among many organizations to help out in these complex challenging cases.

12.5.13 Group 13: People Who Do Not Understand the Language of Instruction

People whose native tongue is different from the official language used in schools cannot understand the educational content thoroughly, resulting in low achievement in education. This is a problem not only in Thailand but in developed countries in Europe and North America as well. For example, children of migrant laborers in the southern region of the United States often speak Spanish. I once visited a school there. They taught in both Spanish and English. Before they taught in English alone. I have a friend who is a teacher in a school at the border, where parents are also being helped to learn English at school.

In Europe, I visited an area in the former East Germany. There was a group of people called Sorbs, who were related to those in the Czech Republic. Their languages are quite similar. They are Western Slavic people. The street signs in that area are in both Slavic and German. They were pleased with the German policy to promote their indigenous culture and language. There is a primary school in which the Sorbian language is used. I wondered how they were going to further their education if they did not learn German. The answer was that they mostly studied in German.

⁹The Thai government has tried to solve the problem of children without citizenship or nationality, but there are so many of them. The children can study up to university level. Some even study abroad. However, they cannot serve in civil or military services, and they do not have access to some public services, such as free medical service and monthly allowance for the elderly or the disabled.

In Thailand, there are many schools in which students have low Thai language and particularly low mathematics achievement. Thai people are usually quite good in mathematics and achieve good scores. But the children with a different language received low scores in mathematics because they did not understand the language being used in presenting mathematics problems and solutions. I asked whether it was possible to have tutors who speak Karen and could teach mathematics in both Thai and Karen languages. I am not sure if this is a good policy, because at secondary or university levels, there may be no one to teach in Karen. It is difficult even to teach in Thai. I mentioned the lack of teachers in secondary schools to the Ministry of Education, and I could not resist hiring a physics teacher for the school. I did not hire teachers for other subjects, and so they are still disadvantaged in learning other subjects. It is difficult just to get a Thai-speaking physics teacher to teach in the school. So if the teacher has to instruct in Lue or Hmong language, it might be even more difficult.¹⁰

In Germany, migrant workers do not understand German and therefore cannot have the same level of education as the Germans. How could one know how many classrooms should be built for these newcomers, since it is difficult to predict their number and movement? I have not yet asked the Germans how they deal with this problem.

12.5.14 Group 14: Those Who Do Not Value Education

This is a difficult and particularly challenging problem. Awareness raising to inform the society and individual families about the importance of education may help. Sometimes they claim that going to school costs money, whereas working earns money. I used to ask them how much money they earned from being workers, and I would pay them that much so that they would go to school. This is how the work-study project or the scholarship project for the disadvantaged was conceived. It is a question of opportunity cost for those who choose to become educated.

12.5.15 Group 15: Intelligent or Highly Gifted People

This problem is on the decrease because there are more and more teachers who understand and give more opportunity for talented and gifted children to develop their full potential. These people can be a big problem if they have not been taken care of well. They can cause problems for both gifted and other children in a class. At present there is a system in which each child can be tested individually to monitor development. In deprived or poverty areas, this is impossible. Teachers have to

¹⁰Currently there are more ethnic teachers who are bilingual and teach in their own areas. They can teach small children in both languages. Knowing Thai language, the children have more opportunity to further their education.

handle the whole class. I once knew about one gifted child studying with other children in the class. The result was that the gifted student suffered, and so did his classmates. His friends said that it was not because they did not like him, but when the teacher asked something, he would answer and then ask questions. The teacher then answered, and both took over the conversation about something that others could not follow and subsequently became extremely bored. He became annoying for the rest of the class. In this case, if the teacher can manage this type of person, there should be no problem. Sometimes too many rules and regulations may block the ability and thinking of gifted and talented children so that they are not able to realize their potential and they can become quite frustrated.

I am not certain whether we should arrange classes according to the level of students' intelligence, i.e., gifted children in one class and slow learners in another, so that appropriate techniques can be used to suit each group. However, teachers say that in practice, it would be very tiring to teach low-achieving children all in one class. They would disturb one another, thus making it impossible to learn. It is better to mix good and poor students, so that they can persuade and encourage one another to learn.

12.6 Education for All: From Jomtien 1990 to Dakar 2000

The last topic is about Education for All, a global target adopted at international conferences in Jomtien in 1990, Dakar in 2000, and most recently in 2015 in Incheon, Korea (UNESCO 2015).

Education for the disadvantaged at present and in the future should be in many forms. In the globalized world, we have to be more open. We have to observe how they do it in other countries. What are their philosophies? What are their values? We cannot just look at the group that we are interested in helping. Loving kindness must not be limited to just our own group. In the present world situation, any event – for example, the bombing of Afghanistan – can be viewed right on our televisions. Everyone can see what happens at the same time. So we need to know about other countries and cultures, especially important now in the AEC era. I have heard people say that Thai people, like other Asian peoples, value being in a group and the unity of the group, whereas Westerners value individualism. I mentioned in the beginning that what we have done has mostly focused on the average people in the population. For the disadvantaged who are in lesser numbers, we have a limited budget, so we think that we have to take care of those who have higher potential to help develop the country first. The disadvantaged are helped only as charity. We cannot continue like this any more because excluded groups are also world citizens. This is the new frame of thought.

When I was helping immigrants, my heart was torn between the idea of patriotism and that of a broader perspective. I was a Thai and was brought up to love my country very much. I had the duty and responsibility to Thailand and the Thai people. Why did I have to reach out any farther? On the other hand, Her Majesty the Queen chaired the Red Cross, and she encouraged me to become more open. At that

time I did not think that I had to do that, but now I see that it is a universal concept. It is also the concept of *metta* (เมตตา), compassion or a desire to make others happy in Buddhism. *Metta* is for all people regardless of nationality, status, or religion. That reflects the same concept. From now on, we have to educate people in the new society in a new way. Individuals may need to earn their living and to learn at the same time. One needs to have a career to earn their living, but one also has to devote some part to work that gives them pride, not money.

I would like to talk a little about “From Jomtien to Dakar.” About 25 years ago, there was an international conference at Jomtien, Chonburi, in Thailand. I presided over that conference on behalf of His Majesty King Bhumibol Adulyadej. In April 2000 there was a follow-up conference in Dakar, Senegal. Delegates from over 180 countries of different developmental stages joined the conference. Each made a pledge for quality education, at least primary education, for all. This means that the disadvantaged are to receive education. At Dakar, they aimed to achieve the goal by the year 2015. At Jomtien, they had set the target by the year 2000, but it did not succeed, so they extended it to 2015. Now we are trying to educate all, especially poor children who are the major disadvantaged group in poor countries, to have at least primary education. It is an attempt being made by many countries working together with international organizations such as UNESCO, UNICEF, the World Bank, IMF, WHO, FAO, and international NGOs. The motto is “Education for All.” They say that education can help solve many problems.

Based on many observations, this is similar to what we have been saying in Thailand. For example, education increases family income and improves child nutrition. Maternal and infant deaths are reduced when women are educated. Statistics in Africa show that 20% of children of uneducated mothers died in childhood, whereas only 12% died if the mothers were educated for 5 years. Educated teenagers were affected with HIV/AIDS at a lower rate than those who were uneducated. Children in schools can receive proper vaccination, necessary vitamins, and nutrients. One statistic shows that 130 million children have never had any education, and more than 150 million children have left schools before Grade 4. I would like to confirm whether or not these statistics are correct, for there may be even more. Fewer girls have gone to school. Some suggest that increasing the number of female teachers and other facilities such as toilets for females could help. They also talk about poor countries with high levels of debt that need assistance from other richer countries. Sometimes the donor countries and the recipient countries do not have the same ideas or policies. To succeed, we need more teachers, more professional development of teachers, more schools, and more participative planning and budget planning. We have to see how things are going to be in the years 2018 and beyond.

12.7 Concluding Remarks

Everyone says education is very important, but when it comes to practice, priorities are given to other areas such as debt reduction or fighting AIDS. This is because education is a chronic problem from all angles. It is exceedingly difficult to solve.

My intention in this chapter is to brainstorm ideas rather than thoroughly explain every single topic. Further research would certainly be useful, whereas I have focused on what I have heard and experienced directly. This chapter does not suffice as a reference because it is far from complete.

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Chapter 13

Inequalities in Educational Attainment



Dilaka Lathapipat

Abstract In recent decades, Thailand has been highly successful in expanding coverage of its basic education system. However, a growing body of empirical evidence indicates that there remain serious issues related to low learning outcomes and rising inequalities in student performance in standardized assessments. For example, in the PISA 2012 reading assessment, one-third of Thai 15-year-old students were classified as “functionally illiterate,” lacking critical skills for many jobs in a modern economy. Students in rural areas, who predominantly attend small schools which are severely lacking in adequate teachers and infrastructure, are not receiving the same quality education that their counterparts in bigger, urban schools are receiving. These rural students, often from Thailand’s poorest families, are also falling further behind. The gaps in learning outcomes at the lower education levels inevitably lead to a concentration of enrolment disparities between socioeconomic groups at the upper secondary and, particularly, the tertiary level. Based on recent research evidence, this chapter identifies the most important equity and quality challenges facing the Thai education system. It argues that Thailand has the resources to build a high-performing education system – one built on schools that utilize the full potential of high-quality teachers and prepare students with the critical skills for success in a modern economy. However, a strong political will is needed if the types of reforms suggested here are to be implemented successfully.

13.1 Historical Trends in Inequality

The average level of education in Thailand has increased significantly over the last several decades. Primary school participation is virtually universal, and lower secondary net enrolment has improved markedly from 33% in 1990 to 83% in 2014. Gaps in schooling access between socioeconomic groups have also narrowed,

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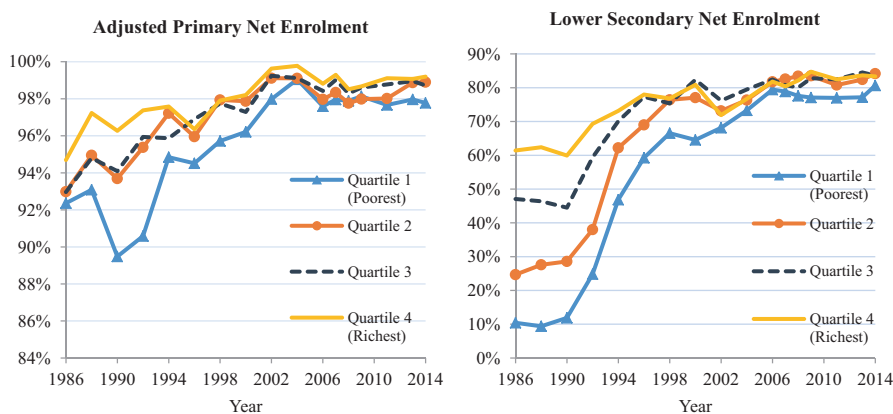


Fig. 13.1 Adjusted primary and lower secondary net enrolment rates by wealth quartile (Source: Author's calculations based on Thailand Household Socioeconomic Survey (various years))

especially at the primary and lower secondary levels (see Fig. 13.1).¹ This success was a result of sustained efforts to expand school coverage and compulsory education to the completion of lower secondary level. Since 2009, mandatory free basic education was extended to 15 years to include 3 years of preprimary schooling up until high school completion.²

Beyond compulsory education, however, there is still ample room for improvement. Even though the net enrolment rate in upper secondary education has increased impressively after 1990, the average rate observed in 2014 is still only 65%. Furthermore, the left chart in Fig. 13.2 shows that there remain significant gaps in enrolment between youths from the richest quartile (Quartile 4) and the rest (Quartiles 1–3). In fact, the enrolment rate gap between the top and the bottom socioeconomic groups seems to have stabilized at around 20 percentage points over the last decade.

A grimmer picture emerges when we consider enrolment rates at the tertiary level in both the technical-vocational and academic programs. The right chart in Fig. 13.2 shows that inequality in access at this level has increased steeply. The gap in gross enrolment rates between the richest and poorest quartiles more than doubled from 39 to 80 percentage points between 1986 and 2014. Notably, the gap widened significantly after 1996, the year of establishing a student loan fund intended to

¹ Children are divided into four wealth quartiles (the poorest in Quartile 1 and the richest in Quartile 4) according to their family per capita monthly expenditure, expressed in “adult-equivalent” units. In order to compare expenditures across households, it is important to correct for household composition and household size by dividing total consumption expenditure by the number of “adult equivalents” in the household to obtain the per capita monthly expenditure in adult-equivalent scale. Each child under age 15 is treated as equivalent to 0.5 adults. All individuals in each round of the SES data set are then classified into four wealth quartiles based on their household's per capita expenditure.

² See Chap. 2 in Dilaka and Sondergaard (2015) for more in-depth discussion on the expansion of educational access in Thailand.

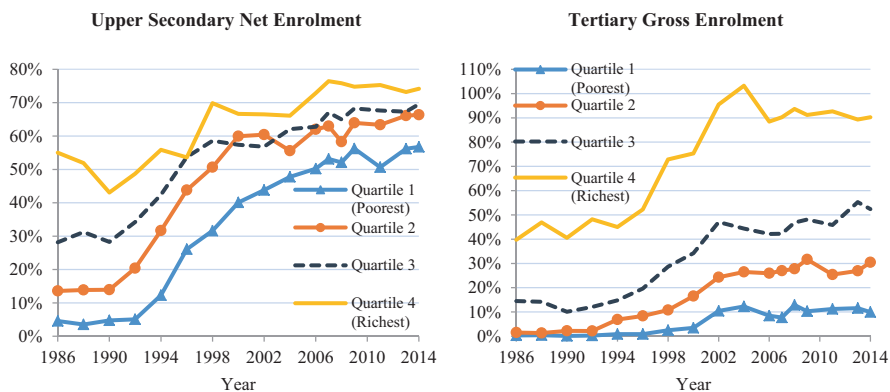


Fig. 13.2 Upper secondary net and tertiary gross enrolment rates by wealth quartile (*Source:* Author's calculations based on Thailand Household Socioeconomic Survey (various years))

overcome the financial constraints on access to tertiary education. Therefore, it appears that children of poor households benefited less from this fund than those of better socioeconomic status (Dilaka 2016).

Dilaka (2013) formally investigates factors that affect schooling decisions at the family level. Specifically, these factors can be divided into long and short term. To conceptualize, the long-term factors encompass all family background and environmental characteristics (such as the quality of early education received, nutrition, parents' education and occupation, and home environment conducive to learning) which are perceived to be important in shaping cognitive and non-cognitive abilities of youth during their formative years. On the other hand, the short-term factor is the household's wealth or economic status (per capita family wealth quartile indicators are used as proxy for family financial resources) at the time when the decision is made whether a child will continue to the next stage of education.

Which of these two groups of factors is more important in determining educational attainment (the highest level of education attained) has policy implications for reducing inequality. If the disparity in attainment is a result of short-run household wealth status, appropriate policy intervention should address the financial burden of disadvantaged households. However, if the disparity arises mainly as a result of long-term factors, policies designed to reduce households' financial constraints will not be effective in eliminating the inequality.

It should be mentioned that due to data limitation, it is usually not possible for researchers to observe all the long-term factors that affect educational attainment. Comparable studies conducted using US data sets³ (see, e.g., Carneiro and Heckman 2002; Cameron and Heckman 1998, 1999, 2001; Belley and Lochner 2007) address this shortcoming by directly controlling for measured scholastic ability together with a rich set of observed family background characteristics in their investigation

³These papers use the National Longitudinal Survey of Youth (NLSY) cohort data sets, which contain rich measures of family background characteristics, as well as measures of scholastic ability embodied in Armed Forces Qualifying Test (AFQT) scores.

into socioeconomic gaps in college attendance and/or high school completion among youth in the USA. Such measures of cognitive ability can potentially capture the effects of unobserved long-term factors such as nutrition, quality of early education received, or home environment conducive to learning. Without a similar measure of scholastic ability in the Thai data set, Dilaka (2013) cautions that the role of family wealth in determining educational attainment is likely to be overestimated.⁴

Nevertheless, even without a direct measure of cognitive ability, the study still finds that nearly half of the inequality in tertiary enrolment between socioeconomic groups in 2008 is attributable to differences in the observed long-run family factors. As a result, the study concludes that the “true effect” of long-term factors is likely to be much more important than that of short-term liquidity constraint in explaining tertiary enrolment disparity between the rich and the poor. Therefore, for the government to address effectively the existing educational attainment inequality, it is not enough to make short-run interventions (through income support, tuition subsidies, or expansion of the student loan program) only during a child’s late adolescent years. There must also be long-term policies to raise the level of scholastic ability of youth, especially those who come from socioeconomically disadvantaged households by ensuring adequate nutrition and provision of fair access to high- or at least good-quality education right from the earliest stage. Such long-term education reform is needed to eliminate the variation in performance that accumulates through the education system and results in vastly different levels of tertiary education participation and ultimately labor market outcomes.

13.2 Student Performance Disparities in Standardized Assessments

The preceding subsection asserts that the concentration of educational attainment inequality at the upper secondary and, particularly, the tertiary level is largely caused by differences in the long-term factors associated with family economic circumstances. These long-term factors accumulate from a very early age and are crucial in determining a child’s academic readiness and labor market success. While there is no data set available which contains both a direct measure of scholastic ability and final schooling attainment of Thai youth to allow explicit evaluation, we can still draw evidence from other data sources as well as from recent studies of Thai education to support the above claim.

⁴Using NLSY79, Carneiro and Heckman (2002) find strong family income effects on college enrolment for white males when they do not control for AFQT scores. However, when they do control for AFQT scores, they find that the enrolment gaps by quartile compared to the richest quartile (see Table 3 in their paper) are not jointly significantly different from zero at conventional levels.

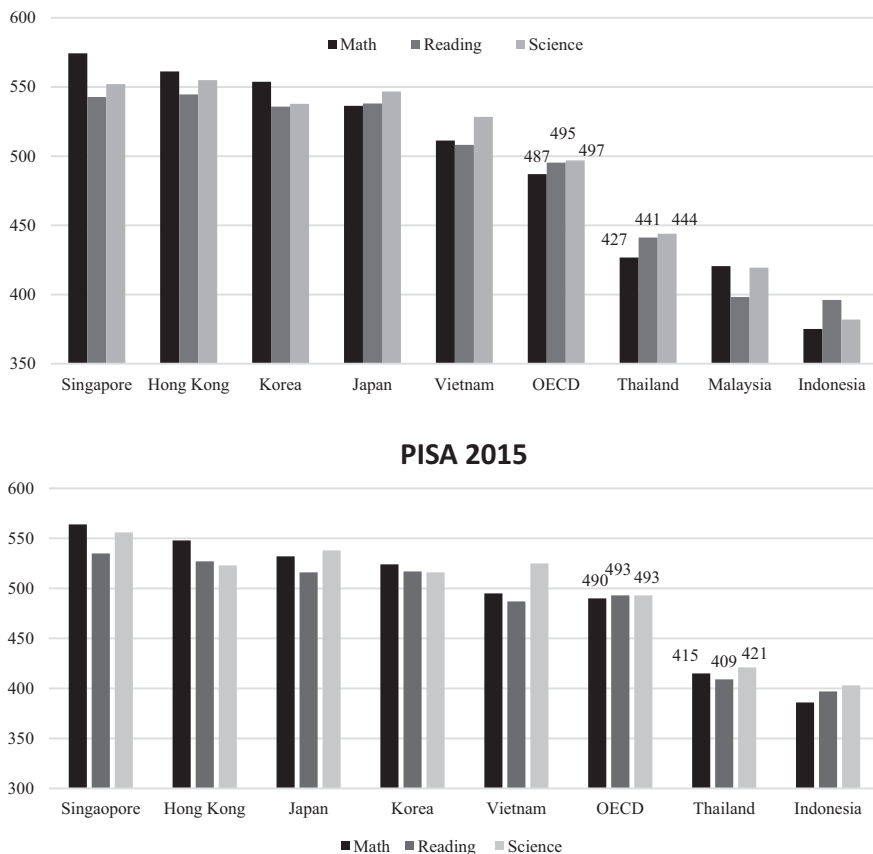


Fig. 13.3 Thai students rank poorly in international assessments and their performance dropped substantially between 2012 and 2015 (Source: OECD 2012, 2015)

Consider first the performance of 15-year-old Thai students in mathematics, reading, and science in the PISA 2012 assessments.⁵ Figure 13.3 shows that the overall learning outcome is very low and the gaps compared to more advanced countries are sizable. This is particularly concerning given recent research findings that cognitive skills, rather than number of years of schooling, are important for economic growth (see, e.g., Hanushek and Woessmann 2012) (Fig. 13.4).

More thorough investigation of the PISA 2012 reading assessment reveals that almost one-third of Thai students failed level 2, which is regarded as the minimum level for “functional literacy” adequate for managing daily living and employment

⁵The PISA is an international survey that aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students. The tests are designed to assess the extent to which students can apply their knowledge to real-life situations and be prepared for full participation in society. To date, students from more than 70 countries have participated in the assessment, which is conducted every 3 years (see www.oecd.org/pisa/ for more details).

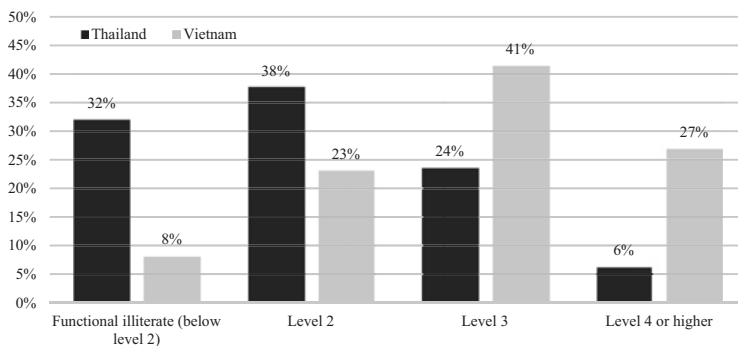


Fig. 13.4 Percentage of 15-year-olds attaining each level of proficiency in the PISA 2012 reading assessment in Thailand and Vietnam (*Source: OECD 2012*)

tasks that require reading skills beyond a basic level. Notice that the proportion of functionally illiterate 15-year-olds in Thailand could be as high as 50% if we assume that those who had dropped out before completing lower secondary school are all functionally illiterate. This stands in sharp contrast to the achievement of neighboring and lower-income Vietnam which participated in the PISA assessments for the first time in 2012 (see Fry and Pham 2011). Only 8% of 15-year-old Vietnamese students failed to reach level 2 proficiency in the reading assessment. In the 2015 PISA exams, Vietnam ranked 8th overall! The conclusion is that too many Thai students nearing the end of compulsory education are ill-prepared for further education and/or labor market entry (Dilaka and Sondergaard 2015).

Regarding student performance inequality, the left chart in Fig. 13.5 shows a scatter plot of average PISA 2012 test scores in mathematics and science for Thai schools against the PISA index of economic, social, and cultural status (ESCS)⁶ of the student body. There is a clear positive and exponential relationship between the two variables, where school average ESCS accounts for as much as 49% of the total unconditional variation in average test scores across schools (left chart). A similar relationship exists between a provincial average student performance index in the 2010 O-NET exams⁷ and the average household annual per capita consumption in 2011 (right chart). We can see that per capita consumption alone explains around 16% of the total unconditional provincial variation in student performance (see Chap. 14).

Perhaps more concerning is that the already large learning gap – measured by the PISA reading scores – observed in 2003 between students in the top 60 and bottom

⁶The PISA index of economic, social, and cultural status (ESCS) was derived from the following three indices: highest occupational status of parents, highest education level of parents, and home possessions. The index of home possessions comprises all items on the indices of family wealth, cultural possessions, home educational resources, as well as books in the home.

⁷The student performance index (ranges from 0 to 100), constructed by Dilaka and Sondergaard (2015), is a weighted index of the 2010 Ordinary National Education Test (O-NET) exams in mathematics and science for students in Grades 6, 9, and 12. For details of the computation of the index, see Appendix A5.3 in Dilaka and Sondergaard (2015).

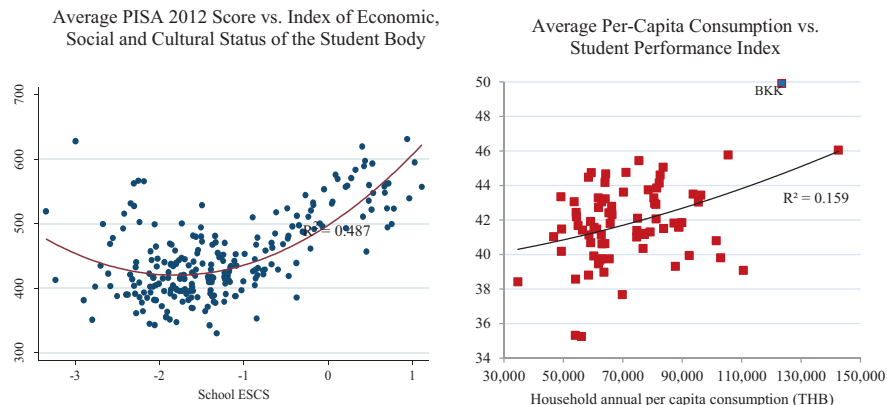


Fig. 13.5 Inequality of learning outcomes in Thailand (Source: OECD PISA 2012 data and Dilaka and Sondergaard 2015)

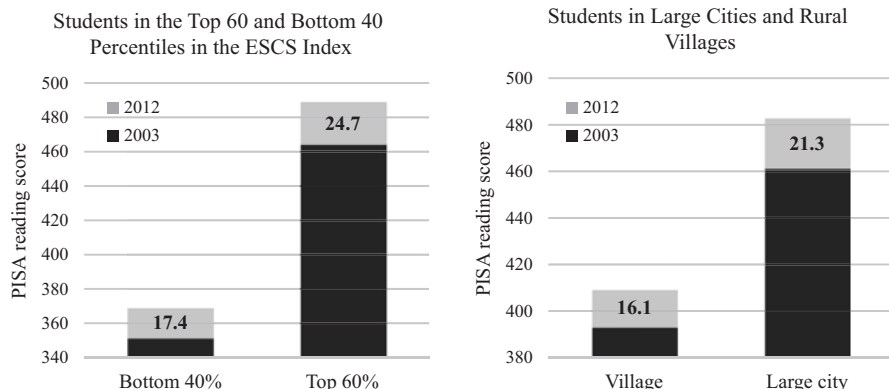


Fig. 13.6 Widening inequality of the PISA reading scores for Thailand (Source: OECD PISA 2012 data)

40 percentiles in the ESCS index has widened significantly over the next 9 years (left chart in Fig. 13.6). As of 2012, the gap has grown to a massive 119 points on the PISA scale, which is equivalent to about 3 years of formal schooling. In terms of location, the disadvantaged and poorer performing students are clearly concentrated in rural village schools (see Chap. 14). The right chart in Fig. 13.6 shows that the performance gap between students in village schools and those in large city schools has also expanded over the 2003–2012 period. The difference in the average learning outcome between the two groups in 2012 is estimated to be around 1.8 years of formal schooling.

The positive relationship between socioeconomic background and student performance or the urban-rural disparities are very common across countries and should not come as a surprise. However, Dilaka and Sondergaard (2015) show that

the three lowest-performing education systems in the Southeast Asian region – namely, Thailand, Malaysia, and Indonesia – are relatively more unequal than high-performing systems such as the OECD countries, Korea, and Japan. The large urban-rural gap in performance indicates that students in village schools are not acquiring the same level of cognitive skills as their counterparts in elite schools in large cities (see Chap. 6).

13.3 What Are the Factors Behind Low Student Performance and High Learning Outcome Inequality in Thailand?

We have thus far seen that family socioeconomic background is highly associated with student performance. The important question then arises as to whether any of the remaining differences in standardized test results are due to certain school characteristics which can be addressed by policy or whether they are merely the result of random variation. To investigate this issue, this subsection reviews evidence from research conducted by Dilaka (2015) using a Thai subsample of the PISA 2012 data and Dilaka and Sondergaard (2015) study using the 2010 cross-sectional school population data collected by the Office of the Basic Education Commission (OBEC).

We begin by describing briefly the study conducted by Dilaka (2015). The main objective of the research is to explore the governance structure under which decentralized decision-making at the school level may yield improvements in student performance. Specifically, the study analyzes the impacts of various combinations of school governance practices on school-level performance on the PISA 2012 assessment (average score in mathematics and science) while treating observable school inputs such as school educational resources, teachers, enrolment and class sizes, and student body socioeconomic background as given. Furthermore, a contribution of the study is to assess the effects of the governance practices on school performance throughout the entire performance distribution (rather than on merely mean outcomes) in an attempt to provide insight into any heterogeneous impacts.

The estimation strategy employed is a two-stage modeling framework, in which an educational production function describing the highest PISA test score obtainable for each student in each school is estimated in the first stage. However, students – given their personal and family background and observable school characteristics – may not have achieved the maximum attainable test score. The shortfall of the actual test score from the maximum for any student, as well as for other students in the same school, can then be used to compute the school-level efficiency score. In the second stage, the impacts of school governance practices on the entire distribution of the school-level efficiency score are evaluated. Only the results from the first-stage estimation of the educational production function are

relevant for the analysis in this subsection.⁸ Interested readers are referred to Dilaka (2015) for a more in-depth discussion of the methodology and the results from the second-stage regression.

⁸The estimation strategy employed is a two-stage modeling framework which can be represented using the following equation:

$$T_{is} = f(F_{is}, R_s; \beta) \times Eff_s$$

where $f(\bullet)$ is an educational production function or production frontier whose arguments are the inputs or factors of production denoted by vectors F_{is} and R_s . The elements of vector F_{is} consist of student i 's individual and family background characteristics, while those of R_s consist of educational resources of school s where student i is attending. By definition, the production function $f(\bullet)$ gives the maximum output or the highest PISA test score obtainable for student i for a given feasible combination of inputs. The term Eff_s denotes the technical efficiency where $Eff_s = 1$ shows that student i in school s obtains the maximum feasible score, while $Eff_s < 1$ provides a measure of the shortfall of the observed test score from the maximum.

In practice, the parameters of the above production process are estimated in the first stage using stochastic frontier analysis (SFA) for panel data (Meeusen and Van den Broeck 1977; Aigner et al. 1977) where each school represents a panel. The estimated regression equation has the following specification:

$$T_{is} = \beta_0 + F'_{is}\beta_F + R'_s\beta_s + v_{is} - u_s$$

where T_{is} is the PISA test score for student i in school s , the vector β is the production technology parameter to be estimated, and $v_{is} \sim iid N(0, \sigma_v^2)$ is a stochastic component describing the random shocks affecting the production process. Notice that each student i in school s faces a different shock, but the shocks are randomly distributed with zero mean and variance σ_v^2 . The random variable $u_s \sim iid N^+\left(\mu, \sigma_u^2\right)$ is the nonnegative distance from the production frontier for school s and is assumed to have a truncated normal distribution (truncated at 0) with mean μ and variance σ_u^2 . Therefore, $u_s \geq 0$ by construction. The random variables v_{is} and u_s are also assumed to be distributed independently from each other.

The first stage SFA panel regression parameter estimates are then used to compute the school-level efficiency score using the equation:

$$Eff_s = \frac{\hat{f}(\bar{F}_s, R_s) - \hat{u}_s}{\hat{f}(\bar{F}_s, R_s)}$$

where $\hat{f}(\bar{F}_s, R_s) = \hat{\beta}_0 + \bar{F}'_s \hat{\beta}_F + R'_s \hat{\beta}_s$ is the estimated educational production frontier, $\hat{\beta}$ is the estimated vector of production technology parameters, \hat{u}_s is the estimated distance from the frontier for school s , and \bar{F}_s is the vector of average student body characteristics of school s .

In the second stage, the impacts of school governance practices on the entire distribution of school-level efficiency score are evaluated using the unconditional quantile regression (UQR) method proposed by Firpo. See Fortin and Lemieux – FFL (2009) for further analysis. In particular, the focus of the second stage is to analyze the effects of decentralization of decision-making to schools with regard to curriculum, budget, and personnel autonomy. The impacts of increasing school autonomy in these different areas are investigated under different accountability regimes.

The estimation results for the educational production function are presented in Table 13.4 in the appendix of this chapter. Several important observations can be made. First, the positive and exponential relationship between student socioeconomic background (embedded in the ESCS index) and student performance is still observed. Furthermore, the effects remain large and highly statistically significant even after controlling for a rich set of individual and school resource factors.

Second, there is clear evidence that investing in early childhood education yields an extremely high return on a child's cognitive (and non-cognitive) ability (see Chap. 5). This is apparent from the magnitudes of the estimated coefficients on years of preschool attendance dummy variables, where each year of attending preschool is associated with an increase in the potential PISA test score of around 17 points, *ceteris paribus*. Notice that this is much larger than the estimated 12.2 point gain for each year of formal schooling. Table 13.1 presents the preschool attendance rates for 15-year-old Thai students, separated into four quartile groups in accordance with their family ESCS score. It is reassuring to see that nearly all children in Thailand have access to early childhood education. However, the gap between the top and the bottom socioeconomic groups with regard to preschool attendance for more than 1 year is as high as 9 percentage points. Since we have seen that each year of preschool attendance plays a powerful role in children's academic success later on in life, this wide gap in attendance is thus one important source of schooling outcome inequality in Thailand which needs to be addressed by public policies.

Third, the PISA index on school material resources⁹ has a positive but diminishing impact on the educational production frontier. Compared to international peers, Thai schools are more severely hindered by a lack of teaching materials that limits their capacity to provide quality instruction (see left chart in Fig. 13.7). Furthermore, schools primarily serving underprivileged children in the rural areas are much more disadvantaged in this regard than schools in large cities. This resource allocation inequity is much worse than that observed in OECD countries (see right chart). Dilaka and Sondergaard (2015) also document a similar lack of school physical infrastructure as well as high inequality between rural and urban schools in Thailand (see Chap. 14).

Fourth, that teachers are one if not the most important of all school inputs in the educational production process is supported empirically by the extremely large and statistically significant coefficient estimate for the "proportion of fully certified

⁹The PISA index on the school's material resources was computed on the basis of six items measuring the school principals' perceptions of potential factors hindering instruction at school. These are shortage or inadequacy of (1) science laboratory equipment, (2) instructional materials, (3) computers for instruction, (4) Internet connectivity, (5) computer software, and (6) library materials. All items were reversed for scaling so that more positive values on this index indicate higher quality of material resources at a school.

Table 13.1 Preschool attendance rates by ESCS quartile – PISA 2012

	Q1 (poorest)	Q2	Q3	Q4 (richest)
Did not attend preschool	2%	2%	2%	1%
Attend for 1 year or less	14%	12%	11%	6%
Attend for more than 1 year	84%	86%	88%	93%

Source: OECD PISA 2012 data as shown in Dilaka (2015)

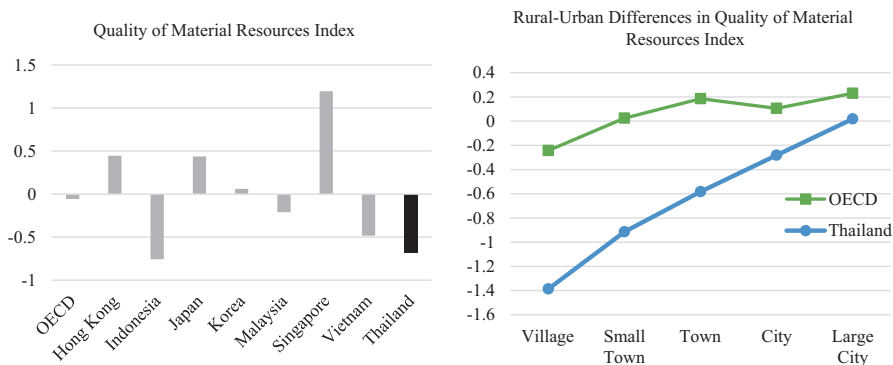


Fig. 13.7 Quality of material resources index by selected countries (left) and for Thailand and the OECD by type of location (right) (Source: OECD PISA 2012 data as shown in Dilaka and Sondergaard 2015)

teachers” variable¹⁰ (see Chap. 18). Another teacher-related variable included as a regressor in the first-stage model is the teacher shortage index.¹¹ A negative regression coefficient for this variable means that a one standard deviation increase in the index is estimated to lower obtainable test score by 3.7 points, *ceteris paribus*. Compared to international peers, it is alarming to see from the left chart in Fig. 13.8 that the Thai secondary school system is severely lacking in qualified teachers. Furthermore, the right chart in the same figure reveals that secondary schools in rural areas are more severely understaffed than their counterparts in urban areas and that the disparity in teacher allocation in Thailand is substantially worse than that in OECD countries.

¹⁰However, it should be mentioned that on average, around 94% of teachers in Thai secondary schools are fully certified (according to PISA 2012 data).

¹¹The PISA index on teacher shortage was derived from four items measuring the school principal’s perceptions of potential factors hindering instruction at school. The four items indicate shortages of qualified teachers in (1) science, (2) mathematics, (3) test language of the country (e.g., Thai), and (4) other subjects. A larger value on this index indicates a higher degree of teacher shortage at a school.

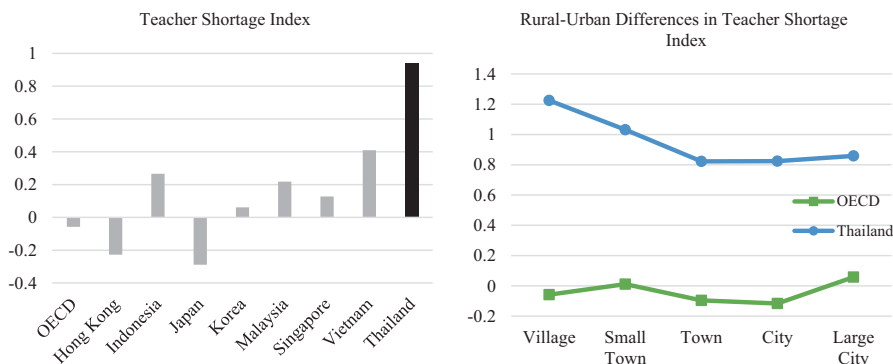


Fig. 13.8 Teacher shortage index by selected countries (left) and for Thailand and the OECD by type of location (right) (*Source: OECD PISA 2012 data as shown in Dilaka and Sondergaard 2015*)

It should be emphasized that our discussion thus far in this subsection pertains only to Thai secondary schools. However, as mentioned in Dilaka and Sondergaard (2015), the problem of teacher shortages is far more acute in Thai primary schools, the majority of which are extremely small. To provide further insight into this important issue, we present in Table 13.5 in the appendix of this chapter a detailed breakdown of key characteristics of primary and secondary schools under OBEC by school size.¹² A rough estimation shows that around 64% of Thai primary schools (those with enrolment size below 120, which is also OBEC's official definition for being "small") are critically short of teachers – defined as having less than one teacher per classroom on average. The implication is that the majority of these small schools are unable to teach students across all grades at the same time unless they practice multigrade teaching (see Little 2006) and/or teachers have to cover many more subjects than their counterparts in large schools.

From Table 13.5, we can see that small schools also have very small classes and low student-teacher ratios. If we only look at these two indicators, we could easily be misled into thinking that these small schools can potentially offer advantages such as a small learning environment with greater classroom interactions. However, if we also take into consideration the number of teachers per classroom, we would realize that instead of reflecting the provision of a high-quality learning environment, the small classes and low student-teacher ratios actually reflect the severity of teacher shortages in these schools. Dilaka and Sondergaard (2015) also document that small rural schools in Thailand are allocated teachers with lower qualifications and teaching experience than large schools in urban areas.

Also apparent from Table 13.5 is that small schools are much more expensive to operate, requiring substantially higher public subsidy per student. Moreover, small schools are concentrated in poorer regions of the country where they predominantly serve the socioeconomically disadvantaged student population. This can be inferred

¹²Table 13.5 is a reproduction of Table A3.1 shown in Dilaka and Sondergaard (2015).

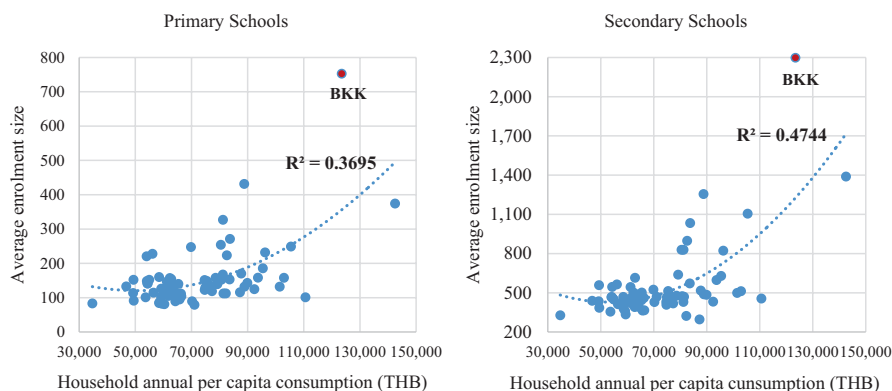


Fig. 13.9 Relationship between provincial average school enrolment size and household annual per capita consumption – primary and secondary schools (*Source:* Author’s calculations based on Thailand Household Socioeconomic Survey 2011 and OBEC 2010)

from Fig. 13.9 which shows strong positive and exponential relationships between provincial average household annual per capita consumption and average school enrolment size for primary (left chart) and secondary schools (right chart) (see Chap. 14).

The analysis given in this subsection explains how socioeconomically disadvantaged children are provided low-quality education at a relatively high per-student (recurrent) cost. The small rural schools are not only endowed with inadequate material resources and physical infrastructure, but they are also hindered by severe shortage of teachers (in terms of both quality and quantity). This level of under-resourcing suggests that closing the performance gap would require a massive outlay that would make these schools even more expensive to operate. In the next section, we will return to analyzing the required increase in the teaching force which will ensure that all classrooms in Thailand are adequately staffed. It is important to recognize that the problem of an oversized network of small schools will get worse very quickly given Thailand’s demographic trends¹³ and current teacher allocation rules.¹⁴

We close this section by providing empirical evidence from Dilaka and Sondergaard (2015) that staffing classrooms in disadvantaged and poorly performing schools with adequate numbers of good-quality teachers will have a positive impact on student learning and help close the performance gap between rich and poor schools.

The empirical analysis again employs the concept of an educational production function in which schools are conceptualized to utilize some production technology

¹³The United Nations Department of Economic and Social Affairs projects that the number of school-age children (3–17 years old) in Thailand will decline from 7.3 million in 2016 to 6.1 million in 2026.

¹⁴See Box 3.1 in Dilaka and Sondergaard (2015).

which combines various inputs into producing student learning.¹⁵ Using this framework, the causal relationships between school-level student achievement¹⁶ and key measures of school input quality, namely, the proportion of teachers with higher than bachelor's degree qualification, the teacher workforce average years of teaching experience, the "unobserved teacher quality index,"¹⁷ and the average number of teachers per classroom, are estimated.

Since the study seeks to evaluate potential interventions which are effective both in raising student learning and in closing the school performance gap, a suitable framework is needed to analyze the impacts of these four school quality measures on the entire distribution of school-level student performance outcome (performance quantiles). Once again, the unconditional quantile regression (UQR) technique introduced by Firpo et al. (2009) is the method of choice for this exercise. We will not be discussing issues relating to the UQR technique here, and interested readers are referred to the Technical Appendix to Annex A4 in Dilaka and Sondergaard (2015) for details. The rest of this section highlights the key findings.

Table 13.2 presents the estimated UQR marginal effects of the four key variables on the (logarithm of) school performance index for schools ranked at the 10th, 30th, 50th, 70th, and 90th performance percentiles, as well as the marginal effects for the "average" school estimated using a conventional ordinary least squares (OLS) regression method.

The final column of Table 13.2 shows that an increase in the unobserved teacher quality index of one standard deviation is associated with an increase of 0.9% in the student performance index for an average school, *ceteris paribus*. Likewise, a 10 percentage point increase in the share of teachers with higher than bachelor's degree qualification is expected to raise student performance by 0.27%. An increase of 10 years in the average experience of the teacher workforce is estimated to improve student performance outcome by one percent. Lastly, it is estimated that allocating one more teacher for each classroom is expected to raise school performance by as much as 2.6%, holding other factors constant. Notice that the estimated marginal effects are all statistically significant at the one percent significance level.

The UQR marginal effects can be similarly interpreted for schools ranked at each respective performance percentile. Alternatively, the UQR marginal effects can be presented graphically as shown in Fig. 13.10 for the three variables on measured teacher quality and in Fig. 13.11 for the number of teachers per classroom variable. Figure 13.10a presents the estimated marginal effects of the unobserved teacher

¹⁵The empirical study uses a 2010 cross-sectional school data collected by the Office of the Basic Education Commission (OBEC).

¹⁶Student achievement is measured by the student performance index, which is a weighted index of mathematics and science scores in the 2010 Ordinary National Education Test (O-NET) exams for Grades 6, 9, and 12. The index is constructed as explained in detail in Section A5.3 in Technical Appendix to Annex A5 in Dilaka and Sondergaard (2015).

¹⁷The "unobserved teacher quality index" approximately captures variations arising from the discretionary wage component (such as performance pay), the average academic ranking of the teacher workforce, and other school average teacher characteristics unobserved by the researcher.

Table 13.2 Average marginal effects of selected variables from the educational production function model – OLS and unconditional quantile regression

	Q10	Q30	Q50	Q70	Q90	OLS
Unobserved teacher quality index	0.011***	0.010***	0.009***	0.007***	0.007***	0.009***
	(0.002)	(0.001)	(0.001)	(0.002)	(0.003)	(0.001)
Proportion of teachers with more than bachelor's degree	0.048***	0.050***	0.045***	0.018	−0.014	0.027***
	(0.017)	(0.012)	(0.011)	(0.014)	(0.021)	(0.010)
Average years of teaching experience	0.003***	0.002***	0.002***	0.001***	−0.002***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Average number of teachers per class	0.058***	0.036***	0.021***	0.009	−0.013*	0.026***
	(0.007)	(0.005)	(0.004)	(0.005)	(0.008)	(0.004)

Source: Dilaka and Sondergaard (2015) based on OBEC 2010 data

Delta method standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

quality index on the entire distribution of schools, ranked according to their performance outcome index in 2010. The dotted lines in the graph represent the 95% confidence band for the estimated effects. Immediately apparent are the larger effects of a one standard deviation increase in the unobserved teacher quality index on student performance for schools ranked toward the lower end of the performance distribution.

Similarly, we can see from Fig. 13.10b that the effects on school performance from increasing the share of teachers with higher than bachelor's degree qualification are largest for schools ranked below the median in the performance distribution. For schools which are ranked higher than the 82nd percentile, the effects of increasing the share of highly qualified teachers turn out to be negative. However, it can be inferred from the width of the 95% confidence band that the estimated effects are not significantly different from zero.

The final measured teacher characteristic of interest is the average years of experience of the teacher workforce. Once again, Fig. 13.10c shows the estimated effects of allocating more experienced teachers to lower-performing schools to be much higher. An increase of 10 years in the average teacher experience is estimated to improve performance outcome for schools at the 12th percentile by as much as 2.7%. This is much greater than the one percent impact estimated for the average school using OLS. Finally, it is not obvious why the marginal effects of average teacher experience should turn negative and statistically significant for schools which are ranked above the 82nd percentile.

Turning now to the important measure of teacher adequacy in terms of quantity, we can see from Fig. 13.11 that allocating one more teacher for each classroom is expected to raise performance for schools at the 2nd percentile of the performance distribution by as much as 15.8% (0.147 log points), *ceteris paribus*. The estimated effects decline to within a range of 4.8–6.5% for schools ranked between the 6th and

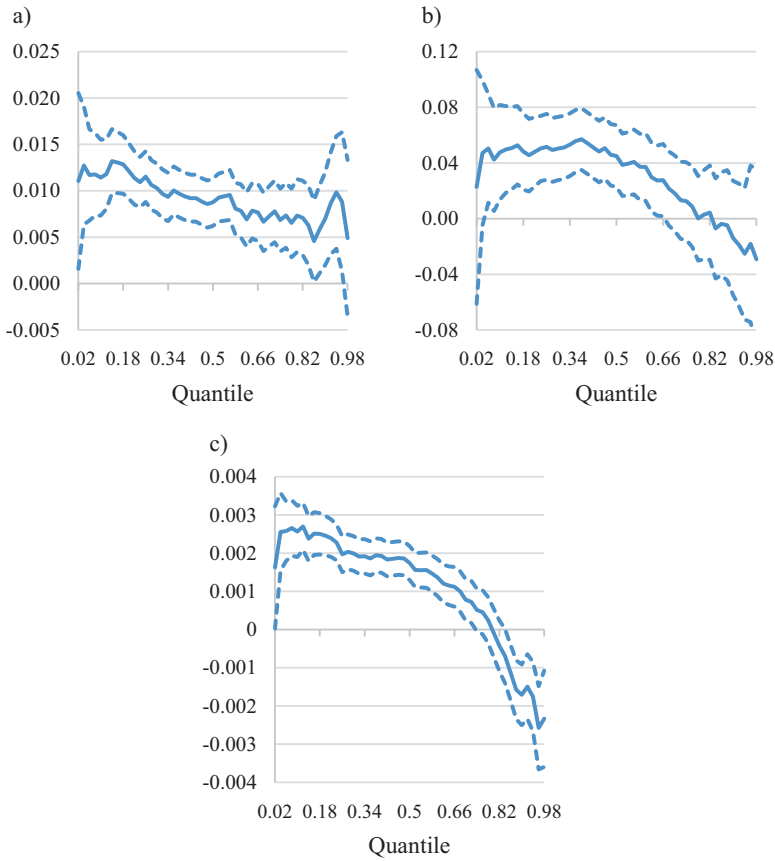


Fig. 13.10 Unconditional quantile marginal effects – teacher quality variables (a) Unobserved teacher quality index. (b) Share of teachers with higher than bachelor’s degree. (c) Teaching Experience (Source: Dilaka and Sondergaard 2015 based on OBEC 2010 data)

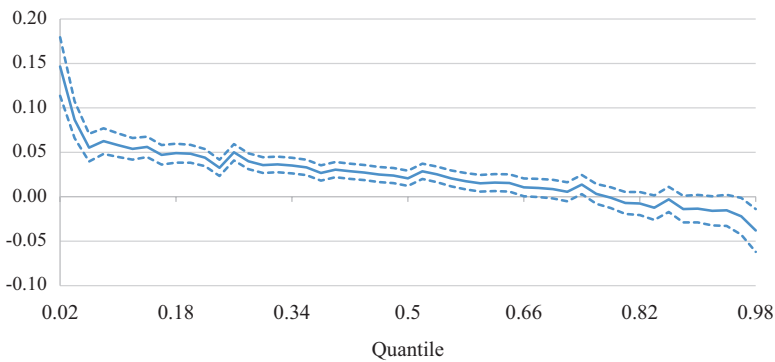


Fig. 13.11 Unconditional quantile marginal effects – teachers per classroom (Source: Dilaka and Sondergaard 2015 based on OBEC 2010 data)

the 20th percentiles before falling off gradually thereafter. The large and positive effects for schools at the bottom end of the performance distribution are not surprising because teacher shortages are rather severe for these schools.¹⁸

The results from Dilaka and Sondergaard's (2015) empirical study reveal that eliminating teacher shortages, both in terms of quality and quantity, would result in significant improvements in student achievement and the impacts would be greatest for lower-performing schools. The analyses of the effects of measured teacher quality and the number of teachers per classroom unambiguously suggest that allocating more and better teachers to small and low-performing schools would result in significant improvements in student learning. Given these findings, Dilaka and Sondergaard (2015) conclude that improving the quality of teachers and addressing the severe teacher shortages, especially for the vast number of small rural schools, should be at the center of Thailand's reform initiatives if the country is serious about tackling the widespread low-quality education and the high disparity in educational achievements across socioeconomic groups.

13.4 Policy Suggestions for Improving the Quality of Education and Reducing Student Learning Outcome Inequalities

Based on the diagnosis given in the preceding section, this section presents a list of some potential policy options which could help Thailand raise its educational standards and reduce the high inequality in student learning outcomes. This list is by no means exhaustive, but is meant to address the most urgent problems based on recent empirical research evidence highlighted previously.

13.4.1 Promote Improved Access to High-Quality Early Childhood Education

International as well as recent evidence from Thailand suggest that investing in early childhood education yields a high return in terms of the development of both a child's cognitive and non-cognitive abilities. According to PISA 2012 data, even though nearly all 15-year-old students in Thailand had experienced preschool

¹⁸For schools ranked at or below the 2nd percentile of the performance distribution, the average number of teachers per classroom is 0.79. For schools ranked between the 2nd and 4th percentiles, the figure improves slightly to 0.93. The figure improves further to 1.0 for schools ranked between the 4th and 6th percentiles and to 1.06 for schools ranked between the 6th and 20th percentiles. For those schools that are ranked above the 20th percentile, the average number of teachers per classroom rises to 1.18. These figures once again confirm that teacher shortages are a very serious problem constraining Thai schools.

education, only 88% had attended preschool for more than 1 year. Furthermore, the attendance rate gap between the top and the bottom socioeconomic groups (quartiles) is as high as 9 percentage points.

Notice also that the PISA sample contains only 15-year-old students. Therefore, if the children who had already dropped out of school before the age of 15 were also included, the attendance figures would likely look significantly worse. Since preschool attendance plays a powerful role in children's academic success later on in life, promoting universal access to 3 years of quality preschool education will be crucial in closing the wide educational outcome inequality in Thailand.

13.4.2 Distributing Educational Resources (Both Personnel and Non-personnel) More Equitably and Effectively

The previous section highlighted that teacher shortages, in terms of both quality and quantity, are a critical factor adversely influencing instruction at many Thai schools. This problem is especially acute for small rural village schools serving disadvantaged children. Tackling this problem should be a priority if Thailand is to raise its standard of education substantially and reduce the high and rising student performance disparities.

A rough calculation using information from Table 13.5 in the [appendix](#) shows that as many as 110,725 out of 353,198 classrooms in Thai primary and secondary schools are critically short of teachers (have less than one teacher per classroom). Given the severity of the problem, a massive outlay would be required to staff all classrooms in the country adequately. Using a simple teacher demand model (see Box 13.1), it is estimated that under the current situation where there are more than 31,000 schools nationwide, Thailand would need to recruit, train, and deploy 108,000 new teachers – an increase of nearly 27% of the teaching force. With an average teacher monthly wage of 26,673 Thai baht in 2010, the increase in the teaching force would require an increase in the annual recurrent budget of 34.6 billion Thai baht or around a 14.3% increase. This estimate is very close to the required 15.4% increase predicted by Dilaka and Sondergaard (2015) using a per-student funding formula based on a cost function approach.

Box 13.1: Teacher Demand Model

The teacher demand model is estimated based on the following set of assumptions:

1. The eight core subjects taught at the basic education level are divided into four groups: (i) English; (ii) mathematics and science; (iii) art, Thai language, social science, and vocational skill; and (iv) physical education.

(continued)

Box 13.1 (continued)

2. The four groups of subjects are required to be taught by specialized teacher (except at the preschool level where each teacher can teach all subjects).
3. Multigrade teaching and teaching more than one subject at the same time are not allowed, except for physical education where a maximum of two classes can be conducted simultaneously by one teacher.
4. Each teacher has a weekly teaching load of no more than 22 hours per week.
5. Total weekly class hours for preschool, primary, and secondary levels are 24 hours, 25 hours, and 35 hours, respectively, and the total class hours are allocated as follows:

<i>Preschool</i>									
	Foreign	Math	Science	Art	Thai	Social	Career	Physical	Total
Total weekly hours/class	3	3	3	3	3	3	3	3	24
Total monthly hours/class	12	12	12	12	12	12	12	12	96
teacher req/class	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	1.091
<i>Teacher required per class</i>	1.09								
<i>Primary</i>									
	Foreign	Math	Science	Art	Thai	Social	Career	Physical	Total
Total weekly hours/class	4	3	3	3	3	3	3	3	25
Total monthly hours/class	16	12	12	12	12	12	12	12	100
teacher req/class	0.182	0.136	0.136	0.136	0.136	0.136	0.136	0.136	1.136
<i>Teacher required per class</i>	0.18	0.27		0.55				0.14	
<i>Secondary</i>									
	Foreign	Math	Science	Art	Thai	Social	Career	Physical	Total
Total weekly hours/class	5	5	5	4	4	4	4	4	35
Total monthly hours/class	20	20	20	16	16	16	16	16	140
teacher req/class	0.227	0.227	0.227	0.182	0.182	0.182	0.182	0.182	1.591
<i>Teacher required per class</i>	0.23	0.45		0.73				0.18	

(continued)

Box 13.1 (continued)

Given the stated assumptions, it is straightforward to calculate the number of (specialized) teachers required for each classroom at each level. Consider a secondary school with a total of eight classrooms, for example. Since the school requires 0.23 English teachers per classroom, the total number of English teachers required is then 2 ($0.23 \times 8 = 1.82$). The number of mathematics and science teachers required is 4 ($0.23 \times 2 \times 8 = 3.64$) and so on. Therefore, the total number of teachers required for this school is then 13 as shown in the table below.

Secondary example: # classes					
8	1.82	3.64	5.82	1.45	
<i>Teacher required per class</i>	2	4	6	1	13
				<i>Average teacher per class</i>	<i>1.63</i>

It should be noted that the estimated 14.3% increase in per-student spending has not taken into account the incentives likely needed to attract qualified teachers to serve in remote village schools in the rural areas. However, even if the funding could be substantially increased, the task of recruiting, training, and deploying 108,000 new teachers would still be monumental.

A more viable option suggested by Dilaka and Sondergaard (2015) is for Thailand to utilize existing resources more effectively by reorganizing its oversized school network which no longer fits the current and projected student population. A school mapping exercise shows that around 85% of small schools (or 16,943 out of 19,864 small schools)¹⁹ are located within close proximity (within 20-min travel time) to each other or to larger schools. Therefore, with careful planning and support, these schools could be reorganized into fewer but larger schools. Such reorganization could be done using a combination of approaches including (1) school mergers, which would involve merging two or more schools within the same area to form a bigger school; (2) school networking, which would involve reorganizing classes and the structure of schools within the same area so they can share resources; and/or (3) redefining (downgrading) poorly performing schools to cover fewer and lower grades and moving older students to better-resourced schools nearby. See Chap. 4 in Dilaka and Sondergaard (2015) for detailed description for each of these options.

¹⁹Dilaka and Sondergaard (2015) define a small school as a school with 20 students or less per grade on average. This is different from OBEC's definition which classifies a school with less than 120 enrolled students as small.

Another option that is currently being explored by the World Bank in collaboration with the Quality Learning Foundation is to (4) turn “receiving” or “hub” schools into attractive options by strategically investing in selected receiving schools and letting nearby small and under-resourced schools fade out gradually over time. Specifically, the preliminary plan involves:

1. In each subdistrict (tambon), identify a medium-sized school (denoted by M-school from here on)²⁰ which is non-isolated, that is, located within 20 minutes from nearby small schools within the same subdistrict. These M-schools will serve as a receiving school (there are 4514 of them in the 2010 data set). For those subdistricts which do not have an M-school, a non-isolated small school will instead be selected.
2. Develop minimum quality standards and support these receiving schools in achieving them. The standards would include adequate number of qualified and specialized teachers (possibly determined using a teacher demand model), school materials, facilities, and physical infrastructure.
3. Provide support for children in small schools who would like to move to these higher-quality and better-resourced receiving schools with safe and efficient transportation, extra pedagogical help, and possibly boarding facilities in some cases. Provision of safe transportation, however, could be a serious problem, which is naturally an important concern of parents.
4. Develop key performance indicators and actively monitor and evaluate the receiving school program in order to track progress (especially on student learning outcomes) and make timely plan corrections if or as needed.

The proposed reform options could be piloted first in some provinces. International experience suggests that it would be a good idea to conduct well-planned pilot studies on these various reform options so that policymakers, parents, and local communities can better understand the impacts on students, teachers, schools, communities, and other stakeholders. Well-informed decisions could then be made to scale up the options that have demonstrated the most favorable impacts. Furthermore, local communities should be provided freedom to make collective and informed decisions to select the most suitable option or combination of options for their communities.

A preliminary school network optimization simulation was conducted according to the Receiving School Approach (Option IV), and the results from this exercise are presented in Fig. 13.12. The simulation predicts that if the program proceeds according to plan and parents move their children to the higher-quality receiving schools nearby, then the non-isolated small schools would gradually fade out over time and we will end up with a total of 15,854 schools nationwide – a massive reduction from the original total of 31,193 schools.

²⁰M-schools are defined as having enrolment size between 120 and 299 and are not classified as small schools (less than 20 students per grade).

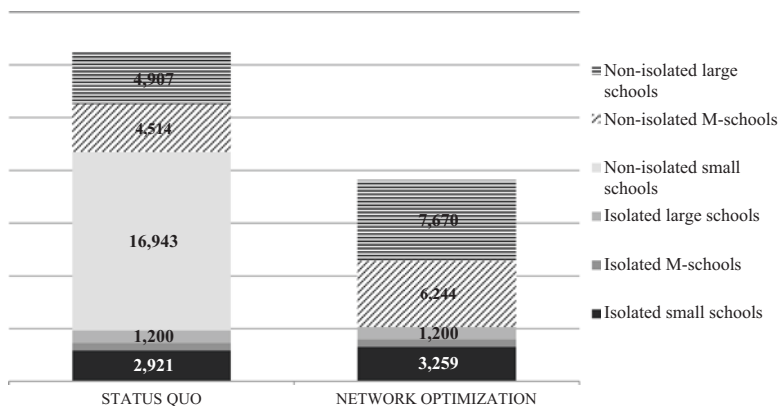


Fig. 13.12 Nationwide school network optimization – the Receiving School Approach (Source: World Bank and Quality Learning Foundation)

After the school consolidation program is completed, there will be around 3259 small schools left which are isolated.²¹ These schools are unable to share resources or merge with other schools due to their remote locations. Furthermore, these “protected schools” should not be merged or closed since access would be adversely affected.

Prior to a school network optimization reform, it is estimated that Thailand would need to recruit, train, and deploy 108,000 new teachers – an increase of nearly 27% of the teaching force – in order to staff all classrooms adequately. Using the teacher demand model once again, it is estimated the reform will result in a large increase in the nationwide average number of teachers per classroom, from 1.15 to 1.38 – importantly, without needing to hire an extra teacher (see Table 13.3).

13.4.3 Greater Incentives for Outstanding Teachers and More Targeting of Funds to the Most Disadvantaged Areas

Recall that after the school network optimization reform, there will be around 3259 small schools left which are isolated. These schools are most likely to be found in remote and socioeconomically disadvantaged areas of the country. The proposed teacher allocation rule behind the teacher demand model ensures that all classrooms in these schools will be adequately staffed with qualified and specialized teachers. Since the model is driven by how many classrooms a school has at different grade levels (rather than by the total number of students in the school), it is easy to see that these “protected schools” will be substantially more expensive to operate in terms

²¹ A school is defined as isolated if there is no school of a similar type (meaning some/all grade levels taught at the schools overlap) located within 20 min from it or if the subdistrict where the school is situated is more than 500 m above sea level.

Table 13.3 Number of teachers required nationwide under different scenarios

	Status quo	Proposed teacher allocation rule	
		Before school consolidation	After optimization
Number of teachers	404,965	513,124	400,423
Required change in # of teachers (%)	–	26.7%	–1.1%
Teachers per class	1.15	1.45	1.38

Source: World Bank and Quality Learning Foundation

of per-student cost compared to larger schools. Recall also that the teacher demand model does not take into account the incentives needed to attract qualified teachers to serve in these small, remote, and rural village schools. The appropriate incentives, however, have not yet been determined, and some experiments may need to be conducted to evaluate the impacts of different benefit packages.

Nevertheless, if the school network optimization reform is implemented, it will be much easier and less costly to mobilize additional resources in terms of teachers as well as other resources for these protected schools when there are only 3259 of them (instead of 19,864 small schools prior to the reform).

13.4.4 More Genuine Decentralization of Educational Administration to the Community and School Level

As discussed in detail in Dilaka and Sondergaard (2015), the ambitious 1999 National Education Act (amended in 2002) led to a long-overdue, comprehensive reform of the Thai education system. The Act promotes the decentralization of educational administration to educational service areas (ESAs), educational institutions, and local administration organizations (LAOs). In reality, however, while schools are enjoying more autonomy with regard to curriculum and within-school budget allocations, they still have very little influence over personnel management (hiring and firing, incentivizing, disciplining, deployment, and payroll administration).

Recall from the previous section the study by Dilaka (2015) which employs a two-stage modeling framework to evaluate the impacts of various combinations of school governance practices on school-level performance on the PISA 2012 assessment while treating observable school inputs such as school educational resources, teachers, enrolment and class sizes, and student body socioeconomic background characteristics as given. We have already discussed the results from the first-stage regression in the last section. In the second stage, the impacts of school governance practices on the entire distribution of school-level efficiency scores are evaluated using the unconditional quantile regression technique.

The study finds that increased autonomy in non-personnel resource management has no statistically significant impact on student learning. On the other hand,

enhanced autonomy in the area of personnel management (which encompasses selecting teachers for hire, firing teachers, establishing teachers' starting salaries, and determining teachers' salary increases) significantly improves learning for better-performing schools (those in the top half of the performance distribution), while the opposite seems to be true for schools with weaker performance (bottom half of the performance distribution). The analysis also shows that learning improves the most in a system with strong accountability (using levels of parental monitoring as proxy for accountability) – see Fig. 13.13 in the [appendix](#) of this chapter.

The important conclusion from this study is: decentralized decision-making will improve learning outcomes only when appropriate governance structures are in place at the school level. Several studies of other countries also find similar conclusions (see Dilaka and Sondergaard (2015) for more in-depth discussions about school autonomy and accountability). The implication is that increased autonomy across the board may not be desirable (see Chap. 19). Dilaka and Sondergaard (2015) suggest that perhaps autonomy could first be increased for better-performing schools and delayed for other schools until they have a sufficient level of capacity and proper accountability to ensure favorable results.

13.5 Concluding Thoughts and Reflections

As noted, Thailand has had great success in expanding the size and coverage of its educational system in recent decades. These quantitative successes have been impressive. However, the empirical data in this chapter illuminate serious issues related to persisting disparities and inequalities in educational attainment and learning outcomes at lower education levels, which lead to enrolment inequalities at the upper secondary and, particularly, the tertiary levels. The serious disparities in access to quality basic education are especially concerning (see Chap. 19).

What then must be done? If Thailand is to escape the “middle-income country trap” and to advance economically in the new AEC era, it must be through creative policy initiatives which address the burning issues of both educational inequality and educational quality. Numerous policy options have been suggested here which need to be carefully considered. Ways must be found to ensure that all Thais have access to *quality education*, from the earliest stages including important preschool education. Real implementation of genuine education reform of the type suggested here is essential if Thailand is to realize its potential to become a dynamic and just society.

Appendix

Table 13.4 Stochastic frontier model of educational production function – PISA 2012

Variables			
Age in years	5.685*** (0.461)	μ	284.129 (179.8)
Grade level	12.171*** (0.357)	σ_u^2	2917.609*** (41.93)
Female	5.407*** (0.251)	σ_v^2	2423.318*** (8.334)
ESCS	10.327*** (0.286)		
ESCS squared	2.173*** (0.091)		
Quality of education resource index	6.828*** (1.078)		
Quality of education resource index squared	-1.770*** (0.382)		
School size/100	-3.318*** (0.268)		
School size/100 squared	0.098*** (0.006)		
Class size	1.552*** (0.318)		
Class size squared	-0.049*** (0.006)		
Proportion of fully certified teachers	157.768*** (4.554)		
Preschool attendance: No			
Yes, for 1 year or less	16.081*** (0.825)		
Yes, for more than 1 year	35.476*** (0.760)		
Teacher shortage index (standardized)	-3.662*** (0.564)		
Intercept	492.250*** (179.9)		
Student observations	6563		
Number of schools	239		

Source: Dilaka (2015)

Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 13.5 Key characteristics of OBEC schools – by school size category

School size category	Primary			Secondary			All		
	Average class size	Total # of schools	Per-student subsidy	Average class size	Total # of schools	Per-student subsidy	Average class size	Total # of schools	Per-student subsidy
Less than 50	4.6	3785	53,504	4.4	10	97,653	4.6	3795	53,635
50 to 69	7.6	3296	43,144	5.8	30	63,433	7.6	3326	43,330
70 to 89	10.1	3260	39,673	8.1	72	58,635	10.0	3332	40,089
90 to 119	13.0	3489	36,768	10.4	217	51,818	12.8	3706	37,672
120 to 149	16.6	2878	34,208	12.7	584	45,828	15.8	3462	36,199
150 to 199	21.2	2175	30,400	16.6	1284	38,486	19.2	3459	33,454
200 to 279	26.0	1337	27,329	21.6	2183	33,230	23.1	3520	31,026
280 to 499	26.3	874	26,368	26.6	2720	29,383	26.5	3594	28,656
500 to 749	30.5	324	25,454	29.7	1032	28,109	29.9	1356	27,474
750 to 1149	33.1	166	25,634	34.1	493	28,803	33.9	659	28,008
1150 to 1999	36.6	114	25,444	37.8	386	28,960	37.5	500	28,162
2000 or above	41.9	50	25,275	43.1	434	31,052	43.0	484	30,544
Overall	15.6	21,748	32,489	29.1	9445	30,843	21.8	31,193	31,476

School size category	Primary			Secondary			All		
	Student-teacher ratio	Teacher per class	Total # of classes	Student-teacher ratio	Teacher per class	Total # of classes	Student-teacher ratio	Teacher per class	Total # of classes
Less than 50	10.3	0.52	28,010	6.3	0.95	85	10.3	0.52	28,095
50 to 69	12.6	0.65	25,926	7.8	0.82	313	12.6	0.65	26,239
70 to 89	13.8	0.78	25,740	9.1	0.99	728	13.7	0.78	26,468
90 to 119	15.0	0.92	27,717	9.8	1.14	2206	14.7	0.93	29,923
120 to 149	15.9	1.09	22,953	10.8	1.23	6192	15.0	1.12	29,145
150 to 199	18.7	1.18	17,535	13.6	1.26	13,683	16.8	1.22	31,218
200 to 279	22.3	1.23	11,915	17.1	1.32	24,009	19.0	1.29	35,924
280 to 499	23.6	1.17	11,968	21.0	1.33	37,304	21.7	1.29	49,272
500 to 749	26.0	1.25	6327	23.4	1.34	20,613	24.0	1.32	26,940

(continued)

Table 13.5 (continued)

School size category	Primary			Secondary			All		
	Student-teacher ratio	Teacher per class	Total # of classes	Student-teacher ratio	Teacher per class	Total # of classes	Student-teacher ratio	Teacher per class	Total # of classes
750 to 1149	25.9	1.32	4579	24.8	1.46	13,313	25.1	1.42	17,892
1150 to 1999	28.1	1.38	4645	26.6	1.50	15,325	26.9	1.47	19,970
2000 or above	27.8	1.55	3160	26.3	1.69	28,952	26.4	1.67	32,112
Overall	19.4	0.93	190,475	22.7	1.40	162,723	21.4	1.15	353,198

Source: Dilaka and Sondergaard (2015) based on OBEC 2010 data

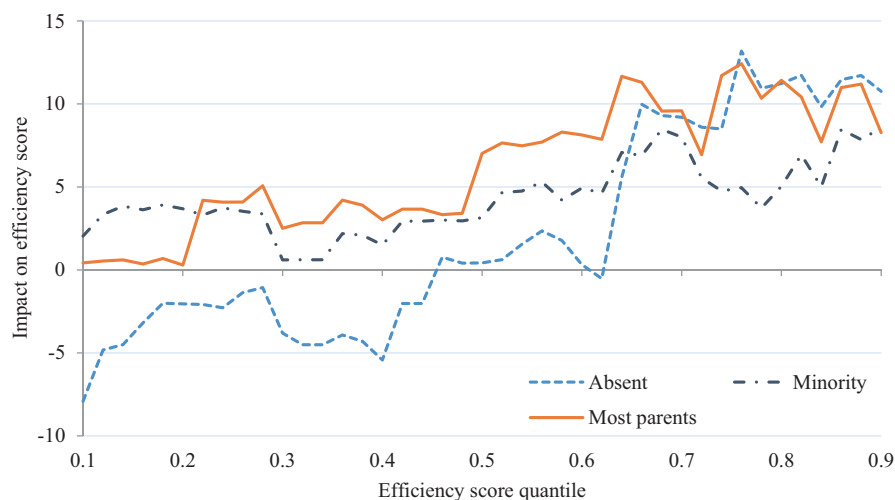


Fig. 13.13 Estimated unconditional quantile regression marginal effects for school-level autonomy in personnel management index

Source: Dilaka (2015).

Note:

The horizontal axis ranks schools according to their technical efficiency score.

The personnel management autonomy index encompasses selecting teachers for hire, firing teachers, establishing teachers' starting salaries, and determining teachers' salary increases.

Expectations from parents for the school to achieve higher academic standards among students serve as proxy variables for the level of accountability in the school (three levels of accountability).

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Chapter 14

Regional Educational Disparities in Thailand



Gerald W. Fry, Hui Bi, and Rosarin Apahung

Abstract Multiple theoretical/conceptual frameworks guide the analyses of this chapter, namely, central place theory (Christaller), forms of capital (Bordieu), economies of scale (Simon), and fiscal neutrality (Glenn). The analyses of this chapter are based on an extensive disaggregated provincial level data set with over 50 empirical educational, social, and economic indicators for each province of Thailand. With these extensive data, it is possible to develop a psychometrically sound index of the quality of education for each of Thailand's 77 provinces. Then the correlates of educational quality are examined and ranked in order. Among factors having the most explanatory power are region of the province, number of universities in the province, percent of small schools (negative factor), and gross provincial per capita. Relatively high levels of economic and educational disparities are found. The ten provinces with the highest quality of education are identified as are the ten provinces with the lowest quality in rank order. Not surprisingly the provinces with the highest quality of education are in the Bangkok Metropolitan Area and Phuket. Those with the least quality were found in the remote North (Mae Hong Son), Northeast (Nong Bua Lam Phu), and South (Yala and Narathiwat). The research underlying this chapter was based on mixed methods. Qualitative field research was done in November 2015 in the most remote part of Isan (Bueng Kan) to hear local perspectives on regional disparities. One of us coauthors (Rosarin) is an educator

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from this remote area of Isan and shares valuable and diverse perspectives in helping to interpret our quantitative data and to develop alternative public policies for reducing regional disparities, which conclude the chapter.

14.1 Introduction

Growing inequality is a pervasive problem and burning issue across the globe (Chomsky 2017; Hickman 2016, p. 11; Smith 1982; Teo 2018). Angel Gurría, Secretary-General of the OECD, notes that inequality levels in OECD countries are at an all-time high (OECD 2015). There are many dimensions of inequality. Those of most concern relate to disparities in income, wealth, and education and lack of intergenerational social mobility and elite circulation (Clark 2015). There are also inequalities at the global, national, meso, and micro levels. With respect to disparities in wealth in Thailand, a 2012 NESDB study indicates that 0.1% own nearly 46.5% of the nation's assets (*The Nation* 2014; NESDB 2014; see also Pasuk and Baker 2015; Thailand Future Foundation 2014; Wittayakorn 2009).

In this chapter, the focus is on regional educational disparities. Unfortunately, there are limited studies in this area because of constraints related to finding appropriate disaggregated data. The Australian economist Peter Warr argues that we often neglect or ignore the important meso (regional level) (Mann 2011; Warr and Ng 1986). The United Nations actually established in 1971 a special center focusing on regional development to study these kinds of issues. It is the United Nations Centre for Regional Development (UNCRD) located in Nagoya, Japan. Donald Holsinger and his students have done some excellent work looking at regional and local educational disparities in Cambodia and Vietnam (Holsinger and Jacobs 2008; Rew 2008).

14.2 Thai Geographic Context

There are different ways of grouping Thailand's 77 provinces. The most common is what Donner (1978) in his extensive economic geography of Thailand calls the "five faces of Thailand," namely,

(1) the Bangkok region, (2) the Central region, (3) the Northern region, (4) the Northeastern region (Isan), and (5) the Southern region. He subdivides the Central region further into two additional subregions: (1) the Bangkok region (including Bangkok and two neighboring provinces) and (2) the Southeast region (seven provinces including areas such as Chanthaburi and Rayong). Interestingly he anticipated the importance of the Bangkok Metropolitan Region (BMR) concept and the emergence of the Eastern Seaboard Project. The focus of Donner's book of more than 900 pages is to show the important differences among these regions. Both the National Statistical Office (NSO) and Pramut Butra-pinyo (general manager of Alpha Research, active in collecting disaggregated provincial level economic and

demographic data) also further break down the Central region into Western, Central, and Eastern regions. Recognizing the importance of the BMR which includes Nonthaburi and Samut Prakan, for example, Pramut adds the category of vicinity of Bangkok for the five provinces surrounding Bangkok (Fry 2013a, b, pp. 51–53, 56).

14.3 Important Differences Among the Five Key Regions

14.3.1 *The Northeast (Isan)*

As Donner notes, there are important differences among the five basic regions. The largest region accounting for the greatest proportion of the population (around 33%) is the Northeast (Isan). Culturally and linguistically it shares many commonalities with Laos (Fry 2002). Centuries ago it used to be part of Lan Xang (“The Land of a Million Elephants”), a large Lao kingdom. As the result of French colonialism, the Lao people were split into two separate polities, Isan under Siam and the other became part of a French colony, Indo-China.

The Northeast has been seriously disadvantaged for decades as it is a relatively arid area with poor soil where normally only one crop of rice can be grown per year. There are numerous novels and books which provide rich descriptions of the difficult lives faced by many in this poorest region of Thailand (Dixon 1999). Among major novels are *Khru Bannok (Rural School Teacher)* (Chiwit 2016; Khamman and Wijeyewardene 1992) and other works (Khamman 1976, 1978, 1984, 1991; Kamphoon 1994; Lao 2001; Pira 1988, 1991, 1994). Martin Platt (2013) has provided a valuable and insightful review of indigenous Isan literature. Among nonfiction works prominent are Sanitsuda Ekachai’s *Voices from Isan* (1988) and Charles Keyes’ more recent, *Finding Their Voice* (2014). Also Fry and Kemper (1996) found remarkable similarities and striking parallels between the disadvantaged Northeast of Thailand and the Northeast of Brazil. Interestingly the Thai Commercial Bank produced valuable encyclopedias for each of the four regions outside Bangkok, including the Northeast (Prasert 1985).

14.3.2 *The North (Lanna Tai)*

As with the Northeast, the North shares commonalities with Lao culture and language. The northern language, *Kham Mueang*, is a Lao language. In the old days, Chiang Mai too was part of a Lao kingdom and was its own kingdom for centuries with many illustrious kings. Its old name was Lanna (meaning the land of a million rice fields). Unlike the northeast, the north has adequate rainfall, allowing multiple crops of rice. The north also has a minor primate city, Chiang Mai, with many fine universities and schools. Also unlike the Northeast, Chiang Mai and the north is a major tourist destination.

The north is also home to a large number of Burmese refugees and migrants. The region is one of Thailand’s most ethnically diverse with many diverse hill peoples

such as the Hmong, Yao, Akha, and Karen (Lewis and Lewis 1984; Marston 2014). Phetchabun, a bridge province between the North and Northeast, is home to Thailand's largest Hmong population (Supang and Tawin 2011).

The controversial populist politicians former prime ministers, Dr. Thaksin and Yingluck Shinawatra, are Sino-Thais from Chiang Mai in this region of Thailand, and generally people in the North and Northeast have been strong supporters of these politicians and their populist policies.

14.3.3 The South

The South has a much smaller population than either the North or Northeast. There are two distinct parts of the South. The four southernmost provinces are largely comprised of Muslims of Malay descent which presents special educational challenges (see Chap. 15).

While there are significant Muslim populations in other parts of the South such as Phangnga and Phuket, most of the central and upper south are inhabited by southern Thais who speak a southern Tai dialect. The south is generally blessed with much rainfall and has important natural resources such as rubber and tin. In general, those in the central and upper south are considered to be more individualistic and achievement oriented than those in other regions outside Bangkok.

The Phuket, Krabi, and Surat Thani areas are also home to a vibrant rapidly growing tourism industry. A number of well-known political leaders are from the South such as the late Damrong Lathapipat, Prem Tinsulanonda, Chuan Leekpai, and Suthep Thaugsuban, leader of the 2013–2014 political protests (Tekueng 2014). The Democrat Party is quite popular in this region.

14.3.4 The Central Region

This is Thailand's major rice growing area and where Thailand's capital has been located for centuries. The National Statistical Office (NSO) and Alpha Research disaggregate this area further into three regions: Western, Central, and Eastern. The Eastern area includes Rayong, the center of the Eastern Seaboard Development Project related to the discovery of abundant supplies of natural gas in the Gulf of Thailand. The Rayong area has also been called "The Detroit of the East" because it is home to many major car manufacturers. Thailand aspires to be a new hub for electric car production. This area is also home to Pattaya, Thailand's most famous beach resort. The major Education for All conference in 1990 was held in Jomtien in this area.

The central part of the region includes the ancient capital of Ayutthaya and the Chao Phraya River (River of Kings). It also includes the provinces surrounding Bangkok, parts of which are included in the Greater Bangkok Metropolitan Region (BMR). Many factories and industrial estates are located in Pathum Thani and

Samut Prakan provinces to the north and southeast of Bangkok, respectively. Nonthaburi, northwest of Bangkok, is home to one of the world's largest exhibition centers, Impact, and the largest private city in the world, Muang Thong Thani. The language of this region, Central Thai, is the basis for standard Thai used in official and academic circles.

14.3.5 *Bangkok*

Bangkok is one of the world's classic *primate cities* and is home to about 10% of Thailand's population (Fry 1983a, b, 2013a, b). Many leading universities and schools are located in the Bangkok area. It is the government, financial, and industrial capital of Thailand. It is also one of the world's leading tourist destinations. Many from the countryside have migrated to Bangkok to take jobs in the modern industrial and service sectors. About half of the population are Sino-Thais, and individuals of this background have played a major role in the development of prominent corporate conglomerates such as the Bangkok Bank and Charoen Pokphand (CP). Prominent examples of such entrepreneurs are Dhanin Chearavanont, head of CP; Ms. Supaluck Umpujh, the dynamic head of the Mall Group; and Paron Israsena, active in the development of the Siam Cement conglomerate. Anderson (2016) also describes the evolution of the political roles of Sino-Thais and their increasing influence.

14.4 Theoretical and Conceptual Frameworks

In trying to understand regional disparities and their correlates, one key framework is central place theory developed by the German geographer, Walter Christaller (Beavon 1977; Christaller and Baskin 1966; Johnson 1970; King 1984). There are many important advantages accruing to those living in central places like Bangkok, a classic primate city (Fry 1983a, b, 2013a, b). Many of Thailand's leading universities and best P-12 schools are located in the Bangkok area. Because of its access to tax revenues, the public schools of the Bangkok Metropolitan Administration (BMA), for example, have far better facilities than many public schools up-country. Those living in remote areas far from central places are likely to be disadvantaged both economically and educationally.

Another important concept from the field of the economics of education is fiscal neutrality. While this term has different meanings in various contexts, here it is adapted to analyze explicitly the relationship between the economic wealth of an area and the quality of education in the same area (CPRE 2015). The ideal criterion is that the quality of education should not be related to the wealth of the community. In the United States, there have many court cases around this issue, in which plaintiffs have argued that their constitutional right to equal educational opportunity has

been violated by interdistrict funding disparities related to reliance on local property taxes to fund public education (see Kozol 2012). The Supreme Court of Kentucky in a highly visible case related to school finance reform to improve fiscal neutrality found the whole educational system of Kentucky out of compliance.

A final concept relates to scale and size of schools, a complex issue indeed. E.F. Schumacher (1999), influenced by Burmese Buddhism, argued that “small is beautiful.” The Korean scholar, Ŏ-ryōng Yi (1984), introduced a similar concept, “small is better.” In the United States context, in cases of excessively large schools, schools within schools have been created to avoid negative aspects of excessive size (Raywid 1995; Devees 2007). Stanford biologist Paul Ehrlich (1975) and the Princeton demographer Anslie Coale (Coale and Hoover 1958) similarly pushed for smaller families and lower fertility, reflected in China’s one child policy and Mechai’s remarkable success in helping Thailand reduce its high fertility rate.

The economist, Julian Simon (1981), however, is a contrarian seeing many positives associated with large size and economies of scale. Thus, key explanatory variables in our analysis of this chapter are school size, percentage of small schools in a province, and size of population to see how these size factors may influence school quality.

14.5 Historical Context: Expansion of Formal Schooling into the Provinces

As noted in Chap. 1, King Chulalongkorn the Great, carried out Thailand’s first major education reform to create a modern educational system in Siam (as known at that time and until 1939 and from 1945–1949) (Prachoom 1965; Watson 1980; Wyatt 1969). Though the initial schools were in Bangkok, the King desired to extend education to all his people. In 1886, 35 schools were established including 14 in the provinces (Manich Chumsai 1951, p. 22). Most of these latter schools were in the Central provinces such as Ayutthaya, Sara Buri, and Phetchaburi. Later in 1898, there was a major conference with the officials of the Ministry of Interior with regard to the provision of education in the provinces. Real implementation steps were not taken until further conferences in 1908 and 1909 when the Lord-Lieutenants and Viceroys of the 17 circles were present. At that time Siam was organized into 17 circles such as Phuket, Udon, Ubol, and Roi Et. As a result of these two conferences, it was decided that the Ministry of Interior would organize education in all provinces. Eventually on September 1, 1921, the King signed the declaration, the Law on Compulsory Education (known as the Primary Education Act), and it went into effect 1 month later. It required that every child throughout the Kingdom, aged 7 to 14, attend school (Manich 1951).

14.6 The Next Round of Reforms After the Student Revolution of 1973

A major theme of the reforms introduced during the period 1973–1976 was the need to address issues of educational equality and equity. Numerous empirical studies were carried out by the government with funding from organizations such as the Ford Foundation to provide more systematic and rigorous data to inform policy decisions about equity and equality (Amrung et al. 1990; Fry 1981, 1983a, b; ONEC 1974). The Ministry of Interior, responsible for rural primary education at that time, introduced innovative budgeting approaches to try to reduce regional disparities (Rung et al. 1980; Rung and Fry 1982).

At that time officials of ONEC proposed school clusters, alternate intake, and bicycling as a solution to the “small school” problem. Though experimentation along these lines was carried out, these innovations were neither sustainable nor replicable on a broader level, and the small school problem persists today even more seriously (see Chap. 13). Reflective of this problem is a recent Thai film, titled *Teacher’s Diary* (Choeman et al. 2014), based on a real school in Lamphun Province in the North. The school has one teacher and four students. It is not uncommon in the Northeast, for example, to find classes with less than 10 students or even less than five. This problem stems directly from Thailand’s “demographic dividend” resulting from Mechai’s dynamic family planning program (D’Agnes 2001).

14.7 Objective, Methods, and Data for the Analysis of This Chapter

The major objective of this chapter is to assess the current state of regional educational disparities and to identify key variables possibly explaining these differences in educational quality among the provinces of Thailand. To do this, it is important to develop a sound and rigorous measure of educational quality for each province. To carry out this analysis, an extensive and comprehensive provincial data set was assembled drawing on diverse sources. Particularly valuable was a recent study of the OEC (2014) carried out by Pattama Kampasri providing extensive educational data disaggregated by province. Also valuable data have been obtained from the World Bank office in Thailand, the National Institute of Educational Testing Services (NIETS 2015), Alpha Research (primarily economic and demographic data), and admissions data for several elite universities (Chulalongkorn and Mahidol). NIETS provided current (2015) O-NET test scores for each province for grades 6, 9, and 12, in eight subject areas.

Employing mixed research methods (Creswell 2017; Levin et al. 2017), qualitative research is done to complement the quantitative analyses. In November of 2015, field work was conducted in the Seka district of remote Bueng Kan province in the Northeast to hear the voices of educators in this region about educational disparities and the factors contributing to them.

14.8 Operationalizing and Measuring Educational Quality

Operationalizing and measuring educational quality presents many complexities and challenges (see Chap. 19). Controversy surrounding this concept is emphasized in a valuable and provocative book by Mounier and Phasina (2010). There are diverse views on what quality of education means (see Spaul and Taylor 2015). The most common approach is to use academic achievement as the key measure (Kiatanantha 2013), though many critics consider this an overly narrow approach to looking at educational quality (Abeles and Rubinstein 2015; Andrews et al. 2014; Gould 1996; Hoffmann 1962). Common academic achievement measures cannot capture important elements of educational quality such as creativity, morality, motivation to learn, commitment to lifelong learning, emotional intelligence (EQ) (Goleman and Senge 2014), and what in Latin America is termed *una buena educación* (Lagarda 2006; Villenas 1996, 2002). The latter Spanish term refers not to years of formal schooling, but instead to whether an individual behaves well and properly, is polite, and has integrity. For example, Gardner (2006) at Harvard delineates nine important dimensions of intelligence, many of which we fail to assess explicitly. The King of Bhutan has emphasized Gross National Happiness (GNH) instead of narrowly economic GDP or GNP (see also Dalai Lama and Tutu 2016). Emma Seppälä (2016) at Stanford is doing important work related to the science of happiness. How important is student happiness? Actually in terms of student happiness, Thai students generally “score” at or near the top in world rankings (Nyamkuu 2014).

It is impossible to measure educational quality directly. For purposes of this chapter, we draw on multidimensional empirical indicators, constrained by available data and cognizant of the serious limitations noted above. For example, at the provincial level, data are not available on moral education or student happiness in Thailand. Also we did not try to obtain district level data, since there are nearly 900 districts in Thailand. Table 14.1 indicates some of the key empirical indicators for which we could obtain disaggregated provincial level data. This represents a huge data set of 32 variables. This was far too large to be manageable.

Table 14.1 Key multidimensional statistical indicators of educational quality

Statistical indicator	Year
O-NET test scores Grade 6 in eight subject areas such as mathematics, science, Thai, and English	2015
O-NET test scores Grade 9 in eight subject areas such as mathematics, science, Thai, and English	2015
O-NET test scores Grade 12 in eight subject areas such as mathematics, science, Thai, and English	2015
Percent of the labor force with college degrees	2013
Percent of the adult population in the province with college degrees	2013
Average educational level in the province	2013
Percent of students dropping out of primary education before completion	2011
Percent of schools scoring over 50% on the O-Net exams, Grade 6	2013
Percent of schools scoring over 50% on the O-Net exams, Grade 9	2013
Percent of schools scoring over 50% on the O-Net exams, Grade 12	2013
Success of students in gaining admission to Mahidol University	2012
Success of students in gaining admission to Chulalongkorn University	2010

Note: Unfortunately data are not always available for the same year. However, on these kinds of indicators there are strong correlations between years

14.9 Data Reduction

To reduce this huge data set to a manageable number of variables, numerous techniques were used including correlational analysis, exploratory factor analysis, and reliability analysis (Cronbach 1951). First, we decided to average the eight O-NET test scores, even though clearly not all eight subjects are of equal importance. Trying to weight subjectively the different test domains was not considered feasible. After coming up with three average O-NET test scores for grades 6, 9, and 12, we then correlated those three variables and found a very high correlation, as expected, among the three indicators. Thus, we took an average of those three scores to represent the relative success of the province's students in the annual O-NET examinations. Thus a data set of 24 test score variables per province was reduced to one single variable. After using these various data reduction tools, we ended up with seven empirical measures of provincial educational quality. The scale, Educational Quality Index (EQI), is found to have sound psychometric properties with a coefficient alpha of 0.78. The seven indicators are indicated in Table 14.2. For each indicator, the item-index correlation is shown. Also as a further test of reliability, a Spearman Rho rank order correlation was calculated for each indicator. The results are generally consistent and the scale crystalizes well.

Somewhat surprisingly the indicator, percent dropping out of primary school, did not crystalize with other indicators and had to be dropped from the scale. Perhaps when there are higher dropout rates, those remaining to take the O-NET tests are the better scoring students. We saw this phenomenon in the United States with No Child

Table 14.2 Key components of the Educational Quality Index (EQI)

Statistical indicator	Item correlation with the index of educational quality	Spearman rank order correlation between the indicator and the index of educational quality
% of adults with a college degree	.83	.69
% of labor force with a college degree	.82	.76
Success in gaining admission to Chulalongkorn University	.80	.70
Average years of schooling	.77	.71
Success in gaining admission to Mahidol University	.75	.70
Average scores on the O-NET examinations across 8 subjects and 3 grade levels, 2015	.60	.80
% of schools (Grade 9 O-NET exam scoring >50%)	.37	.52

Left Behind, where at times poor performing students conveniently did not participate in the testing. A similar situation exists in Iowa where students generally score high on the SAT tests, because the state's participation rate in taking the SAT is rather low.

14.10 Descriptive Results

Tables 14.3 and 14.4 show the respective rankings of various provinces with respect to educational quality. Table 14.3 lists the top ranked provinces in order, while Table 14.4 lists the lowest scoring provinces. These data have strong face validity that will make sense to those familiar with the various regions of Thailand.

Nearly all the top-ranking provinces are important central places. Four (Bangkok, Chiang Mai, Phuket, and Chonburi, including Pattaya) are major tourist centers. None are in the disadvantaged Northeast. Exactly 50% are in the Bangkok Metropolitan Region.

For the lowest scoring provinces, exactly 50% are in the disadvantaged Northeast and two are in the Malay-speaking deep Muslim South. The two Northern provinces are home to large numbers of indigenous hill peoples. The only central province appearing on the list is Sa Kaeo which borders Cambodia and has ethnic Khmer communities. In all ten of these provinces, the mother tongue of most children is not Central standard Thai. Thus, language policy and issues is a crucial issue (see Chap. 15).

The lowest scoring province is also Thailand's poorest province economically. Three of the lowest scoring provinces are among the eight provinces with the highest level of chronic poverty (*The Nation* 2014; NESDB 2012).

Table 14.3 Provinces with the highest education quality index in rank order

Name of province	Region	Education quality index
1. Bangkok	Bangkok	29.4
2. Nonthaburi	Bangkok Metropolitan Region (BMR) (vicinity of Bangkok)	23.3
3. Nakhon Pathom	BMR	10.5
4. Phuket	South	9.1
5. Samut Prakan	BMR	7.1
6. Chonburi	Central (Eastern)	5.5
7. Pathum Thani	BMR	5.2
8. Songkhla	South	4.6
9. Chiang Mai	North	2.9
10. Trang	South	2.9

Table 14.4 Provinces with the lowest education quality index in rank order

Name of province	Region	Education quality index
1. Mae Hong Son	North	-7.4
2. Nong Bua Lam Phu	Northeast	-7.0
3. Yala	South	-5.6
4. Narathiwat	South	-5.4
5. Tak	North	-5.4
6. Chaiyaphum	Northeast	-5.2
7. Sa Kaeo	Central (Eastern)	-4.9
8. Nong Khai	Northeast	-4.8
9. Kalasin	Northeast	-4.8
10. Amnat Charoen	Northeast	-4.7

14.11 Analytical Results

The coefficient of variation is considered an excellent measure of inequality (Fry and Martin 1991). Table 14.5 presents the coefficient of variation for our key outcome variables. Table 14.6 presents the coefficient of variation of our key explanatory variables.

For most variables included in our study, there is a high level of inequality. The variables with the most inequality are three educational ones, namely, chances of entering one of Thailand's top universities and percent of schools with students "excelling" on the O-NET examinations. The two variables with the least inequality are two educational ones, namely, student-teacher ratio and average score on the O-NET exams. The latter equality in this particular case is actually not positive and relates to the theme of Chap. 19, the overall poor quality of Thai education across many provinces. Students are uniformly doing poorly on the O-NET examinations. The key economic variable, gross provincial product per capita, shows considerable inequality, almost identical to that associated with gaining entrance to Mahidol

Table 14.5 Coefficients of variation for key outcome variables

Indicators of educational quality	Coefficient of variation
Ratio of advantage, entrance to Chulalongkorn University (2010)	1.41
Percent of schools, Grade 9, scoring over 50% on the O-Net exam	1.39
Ratio of advantage, entrance to Mahidol University (2011)	0.97
Percent in province going on to university (2011)	0.44
Percent of labor force with college degree (2013)	0.40
Average years of schooling (2011)	0.09
Average student performance (2015)	0.06

Table 14.6 Coefficients of variation for possible explanatory variables

Possible explanatory variables	Coefficient of variation
Gross provincial product per capita	0.97
Average size of schools (2010)	0.80
Number of small schools (OBEC) (2010)	0.72
Number of small schools (WB) (2010)	0.71
Total number of schools (2010)	0.65
Budget (2015)	0.52
Expenditures per capita (2009)	0.24
Student teacher ratio, basic education (2012)	0.11

University. The important small school variable shows considerable variation across provinces, as expected. The educational budget variables show moderate levels of inequality.

Our next level of analytical analysis involves examining the bivariate correlation between possible explanatory variables and our educational quality index (see Table 14.7). This analysis is guided by the Pareto Principle based on the thinking of the influential Italian political economist of wealth and income distribution, Vilfredo Pareto, and adapted by Joseph Juran (Reh 2016). The goal is to isolate the key factors related to regional disparities and identify those variables which show a strong statistical association with our index of educational quality. Since these are true population values, there is no issue of statistical inference, and, thus, there is no need to report level of statistical significance (Hirschi and Selvin 1973).

Regional variables (Bangkok and vicinity of Bangkok) have the highest explanatory power, and the Northeast region is the most disadvantaged (as expected) supporting Warr's emphasis on the need for meso-analysis. With population showing a positive relationship with educational quality, there is some support for Simon's economies of scale argument. As expected the extent to which a province has universities also is a strong explanatory variable. Two other key variables are percent of small schools (highly negative) and number of coaching schools, adjusted for population (highly positive). The latter is consistent with the extensive research of Mark Bray (2017), Bray and Lykins (2012) on the influence of shadow education

Table 14.7 The correlates of educational quality

Correlates of education quality	<i>r</i> value	<i>r</i> ² value
Bangkok and vicinity (dummy)	.68	.47
Number of universities	.67	.45
Bangkok (dummy)	.61	.38
Percent of small schools (WB definition)	-.55	.31
Population 2013	.53	.29
Number of coaching schools/per capita	.50	.25
GPPPC 2012	.41	.17
Distance	-.34	.12
Northeastern (dummy)	-.27	.07
Budget PC 2015	-.23	.05
Northern (dummy)	-.17	.03
Expenditure PC 2009	.12	.01
Student-teacher ratio	.09	.01
Southern (dummy)	.00	0

and how it contributes to inequality (see Chap. 25). The *r* squared for gross provincial product per capita, while having considerable explanatory power, was smaller than expected, indicating some degree of fiscal neutrality. The distance from Bangkok has a moderate statistical association with educational quality, indicating some support for central place theory. That there was no relationship between the Southern region and educational quality makes perfect sense, since in general the central and upper South does well, but the four southernmost Muslim provinces fare poorly, so the effect for that region is negligible.

14.12 Qualitative Results: Voices from a Remote Area of Isan (Northeast)

In November 2015, field research was conducted in the Seka district of remote Bueng Kan province (Thailand's 77th and newest province) to hear the voices of educators in this remote area about regional disparities and factors contributing to them. This is a summary of their voices:

14.12.1 Factors Contributing to Disparities

Five key factors were identified:

1. The relative poverty of the Northeast with its arid conditions. This view is consistent with the high coefficient of variation found for economic inequality among Thai provinces (see Fry and Kempner 1996).

2. Lack of adequate educational learning materials and inadequate funding to secure the best learning materials and technology needed to have quality education.
3. Because of their remoteness, teachers in the schools do not receive adequate mentoring or coaching. Also their real needs and concerns are not known by “far away” administrators who rarely if ever visit their schools.
4. Teachers in these remote schools lack awareness of modern teaching techniques essential in a rapidly changing global knowledge economy and lack adequate and relevant in-service training.
5. In such remote areas as this, there are no educational resource and learning centers as in central places and larger urban areas.

14.12.2 Suggestions for Reducing Disparities

Five suggestions were identified for reducing such educational disparities:

1. The government must find ways to reduce the *economic* disparities among provinces and regions (Pasuk 2012; Suphannada 2012).
2. There must be more targeting of funds to assist schools in remote disadvantaged areas to obtain learning materials and technologies to improve quality.
3. There need to be more scholarships and fellowships for bright students in remote areas to enable them to realize their full potential.
4. There needs to be more effective in-service training, coaching, and mentoring, to enable teachers to achieve excellence in teaching and to improve quality. Teachers are at the heart of the learning process.
5. Those policy-makers and administrators responsible for improving educational quality must be sincere and transparent. Their decisions must be driven by reliable empirical evidence from genuine assessments of conditions in remote areas and listening sincerely to the voices of these in these locations.

14.13 Conclusion and Policy Alternatives to Consider

Based on extensive disaggregated provincial level educational data, a measure of the quality of education in each of Thailand’s provinces was calculated. As expected there are great disparities across regions. The most disadvantaged provinces are located in the remote border areas of the Northeast, North, and the deep South.

Key factors contributing to lower quality were location (remote rural), less access to higher education, higher percent of small schools, much less access to coaching schools, and low income of a province. Clearly there is a lack of fiscal neutrality with wealthy Bangkok and neighboring provinces having the highest quality of education. Interestingly Ulrich Zachau, the World Bank’s Southeast Asia director,

recently stated that “the single most important thing for Thailand is to improve its and education and skills outside Bangkok” (*The Nation* 2015) (see also Ammar et al. 2012; Somkiat and Supanutt 2012). Thus, it is imperative for Thailand to find ways to reduce these regional disparities. Given the evidence presented in this chapter, the following policy options, in addition to those just mentioned above, should be carefully considered:

- Solve the small school problem which is contributing to low quality and inefficiency in the use of educational resources (see Chap. 13) (Fernquist 2010; Khajornsak 2013; Nithiwat 2014). School consolidation appears to be the appropriate solution and is now being pursued.
- Increase incentives for quality teachers to teach in remote rural areas.
- Target more funds to schools in disadvantaged remote areas.
- Promote greater use of mother tongue language in the early years in remote areas with ethnic and linguistic diversity (see Chap. 15).
- Use funds from a tax on the shadow education industry to provide greater educational opportunities and scholarships for the most talented in remote rural areas and to identify talent in these areas.
- Provide greater access to quality education by rapidly growing migrant labor groups from neighboring countries, particularly in the North (Burmese migrants) and the lower Northeast and East (Cambodian migrants).

Zachau notes that Thailand’s economic performance has been adversely affected by the inadequate skills and productivity of the country’s labor force. Key to addressing this huge challenge is reducing regional disparities in educational quality so that students throughout the Kingdom have the opportunity to realize their full potential and talent.

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Chapter 15

Education in Thailand's Ethnic Languages: Reflections on a Decade of Mother Tongue-Based Multilingual Education Policy and Practice



Suwilai Premsrirat and Kirk R. Person

Abstract Thailand is home to some 70 diverse ethnic groups, each of which has its own unique language. Statistics reveal that many children from these communities living in remote northern, southern, and northeastern border regions have limited success in “normal” government schools, due in part to low Thai language abilities. This chapter chronicles efforts by academics, nongovernmental organizations, and language communities to integrate diverse ethnic languages into local schools via mother tongue-based multilingual education (MTB MLE). Eight years of student testing demonstrates that children in these MTB MLE pilot schools outperform their peers in “normal” Thai-only schools in all subjects – including the Thai language. The positive results of these programs deeply influenced the Royal Society of Thailand’s new national language policy, which states that all Thai children have the right to education in their mother tongue.

15.1 Introduction

Inscribed in stone outside the Yala Provincial District Twelve Education Office are the words in Thai, “Education is crucial. Strive to manage it well. Enable the people to speak the Thai language.”¹ This pronouncement from His Majesty King Bhumibol

¹ การศึกษาที่สำคัญมาก ให้พยายามจัดให้ดี ให้พลเมืองสามารถพูดภาษาไทยได้.

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Adulyadej the Great on his visit to that region on March 23, 1959, has served as inspiration for Southern educators for decades. Nonetheless, statistics reveal serious shortcomings in the acquisition of Thai language skills in the Patani Malay-speaking Deep South, and elsewhere in the country, among children whose mother tongue is not Thai.

In 2013, for example, the Ministry of Education (MOE) found that 64,000 Grade 3 students and 32,000 Grade 6 students (8% and 4%, respectively, of total student enrollment in those grades) were in fact illiterate. Speaking to the press, Secretary General of the Office of the Basic Education Commission Dr. Chinnapat Bhumirat explained, “Students of peripheral and ethnic backgrounds who suffer difficulty to communicate in Thai are also the main group that we must follow closely” (*Khaosod English* 2013).

Dr. Chinnapat’s comments reflect a growing awareness that, contrary to the popular belief among Thais themselves, Thailand is a multiethnic, multilingual nation and that a “one-size-fits-all” approach to education is inadequate to address this crucial reality.

In this chapter we provide an overview of Thailand’s linguistic diversity, discuss past and current efforts to use ethnic languages in Thai classrooms, and detail how pilot mother tongue-based multilingual education (MTB MLE) projects in the Deep South and North have both informed the Royal Institute (now Royal Society) of Thailand’s efforts to draft a national language policy and challenged the ongoing education reform debate.

15.2 Thailand’s Linguistic Ecology

Thailand is situated in the heart of Southeast Asia, an area of great cultural and linguistic diversity. Over 70 languages have been spoken in Thailand for generations. These languages belong to five distinct languages families: Austroasiatic (22), Austronesian (3), Tai (24), Sino-Tibetan (19), and Hmong-Mian (2) (Suwilai et al. 2001). Although exact figures on language usage are notoriously difficult to assess in conventional censuses, UNICEF’s (2007) Multiple Indicator Cluster Survey concluded that that 6.7% of Thai citizens speak a non-Tai language in the home, a figure we feel to be accurate. In the late 1970s, Thailand produced a valuable colorful language map showing exactly where these many languages are spoken (Gainey and Theraphan 1977a, b). Joachim Schliesinger (2001a, b) in two volumes provides rich and valuable ethnographic detail on the diverse Tai ethnic communities. Gilquin (2002) has provided a valuable overview of Thailand’s Muslim communities. Few realize that around 8% of the Thai population is Muslim. The majority of people living in the Deep South are Muslim, but roughly 82% of Thailand’s Muslim population are scattered across Thailand. The large and impressive Islamic College of Thailand is, for example, in Thonburi.

These many languages are hierarchically interrelated within Thai society, with standard Thai, which is based on a variety of Central Thai, the official and national

language, occupying the highest position (Smalley 1994). Immediately below Thai in the hierarchy are four major regional Thai languages: Kammuang (Northern Thai), Lao Isan (Northeastern Thai), Paktay (Southern Thai), and Thai Klang (Central Thai), each acting as the lingua franca of local communities. Below the regional Thai languages are community languages, including many ethnic languages, several of which are at risk of extinction. Most ethnic language speakers are therefore bilingual or multilingual and live in a diagglossic environment. They speak their ethnic language at home with family, neighbors, and members of their ethnic group. They speak their regional Thai language or the national language itself in social domains where the situation demands it or when the people they are speaking to do not understand their ethnic language. In schools and government offices, on formal occasions, and in the media, only standard Thai is supposed to be used.

In recent decades, globalization has led to major shifts in this language ecology, a process that has been exacerbated in Thailand by nationalism, especially with regard to the national language and education policies that promote standard Thai as the *exclusive* medium of instruction in schools, on formal occasions, and in the media. As better job prospects require the use of the national language, some among the younger generation do not see the value of their ethnic languages and even harbor negative attitudes toward them. Some abandon their ethnic language and culture in an effort to become more “Thai,” only to discover that the bias against them remains (Prasit 2015).

As a result, all Thailand's ethnic languages have been weakened to various degrees, and at least 15 can be considered severely endangered. They are small-enclave languages surrounded by larger language groups and are scattered over various parts of the country. These include Chong, Kasong, Sammre, Chung, So (Thavung), Nyah Kur, Lavua, Maniq, Mlabri, Gong, Mpi, Bisu, Urak Lawoi, Moken/Moklen, and Saek. The Kasong and Sammre languages have no realistic hope of surviving the death of the last few elderly speakers, and they are being documented as extensively as possible (Suwilai 2007).

On the other end of the spectrum are ethnic languages with large populations. Thai Khmer in the Northeast and Patani Malay in the Deep South both boast over one million speakers (Lewis 2015). Roughly half a million people speak a variety of Karen, making the Thai Karen comparable with Welsh in terms of population (Delang 2003; Jolliffe 2016). Other languages, such as Mon, Akha, Lahu, Lisu, and Hmong, are each spoken by 40,000–100,000 people within Thailand, with tens or even hundreds of thousands of speakers in neighboring countries. Supang and Tawin (2011) have provided a detailed assessment of the situation of the Lao Hmong in Thailand.

An additional recent development is the influx of 2–3 million legal and illegal migrant workers from Cambodia, Laos, and Myanmar. In the case of Myanmar, many of the migrants are actually speakers of Shan, Mon, Palang, Karen, and other ethnic languages. This includes a large number of children, some 200,000 of whom are not enrolled in Thai schools, despite having technically the legal right to do so (Dowding 2015; Draper and Peerasit 2015).

Regardless of the ongoing trend of linguistic assimilation, children whose mother tongue is not Thai continue to perform poorly in school. Most are able to acquire what Cummins terms “basic interpersonal communications skills (BICS)” in Thai but are failing to develop “cognitive academic language proficiency (CALP),” the higher level language processing functions that become critically important in the upper primary and secondary years (Cummins 1980, 1981, 1986). They thus lack a strong foundation on which to build their educational experience. Some drop out, while many who remain in school fall further behind their native Thai speaking counterparts every year.

15.3 Bilingual Aspirations

The idea of using ethnic languages in education in Thailand is not new. In 1947, the Provincial Islamic Council of Patani presented the Thai government with seven requests, including the recognition of Malay as an official language, alongside Thai, in the South, and the use of Malay as a medium of instruction in government schools – something that would not be officially condoned for another 60 years (Phuthaphon 2009; Patani (region) 2014).

Elsewhere in Thailand, Catholic and Protestant missionaries and their national colleagues had long been carrying out language development activities among various ethnic groups, developing orthographies, initiating community-based literacy programs, and translating the Bible. In the late 1960s, a group of missionary linguists led by William Smalley developed Thai-based orthographies for ten ethnic languages, to be used alongside or instead of existing Roman-based or traditional scripts. Their motivation was not exclusively religious. Development workers had known since the 1950s that ethnic children who gain literacy skills in their mother tongue do better in national language schools than their peers who are “immersed” (or, more accurately, “submerged”) in the national language. Thus, Smalley declared:

Certainly education in Thai is the most important for Thailand’s minority peoples, but what is the best way to bring this education about? We would like to see the Thai policy in language planning turn firmly to the fostering of bilingualism and planned bilingual education. The child learns to read and write his own language, preferable using a Thai-based script with Thai letters insofar as the sounds of his language match Thai, making adaptations where they do not. (Smalley 1976, p. 19)

Smalley’s hopes for bilingual education may have been just that. While the 1970s and 1980s saw increased focus on what the Thai government termed the “hill tribe problem,” we are aware of no evidence that bilingual education was seriously considered by Thai officials or their international advisors. Reports and evaluations from USAID’s multimillion dollar Hill Areas Development Project in the late 1970s and early 1980s, for example, mention the linguistic challenges faced by ethnic adults and children and their low Thai literacy skills, but stop short of recommending bilingual education (Ministry of Education 1982). Similarly, Chiang Mai

University's Tribal Research Institute, founded by the Ministry of Public Works in 1965 to assist government development efforts, never broached the idea of bilingual education before its sudden dissolution in 2002 (Kwanchewan 2006; Songwit 2014, personal communication). And while the number of international and domestic non-governmental organizations (NGOs) working on ethnic issues (including education) exploded in the 1990s, bilingual education was not part of the development agenda (Kosonen and Person 2014). The ideal of a linguistically and culturally unified Thailand as a bulwark against the communist threat undergirded assimilationist development policies throughout the 1970s and 1980s and continues to consciously or unconsciously influence policy makers today (Diller 2002).

In the Deep South, Mohammad Abdul Kadir of the Department of Non-Formal Education (NFE) long advocated bilingual Malay-Thai education as a way to address the dismal academic performance of Patani Malay-speaking students. In 1989, shortly before his retirement, he asked a gathering of Thai and international scholars at Thammasat University, "Are we willing to let the truths from research guide the drafting of a language plan for Thailand?" (Kadir 1989).

Although these early voices went unheeded, the problem of poor school performance continued to grow as even as Thailand dramatically increased the number of schools in remote, non-Thai speaking regions in the 1990s and early 2000s. As then Minister of Education Chaturon Chaisang observed at an Education Reform Committee meeting attended by Person in early 2014, Thailand has done an impressive job in terms of quantity, adding more schools and students to the system, but without seeing a commensurate rise in quality (see Chap. 19).

15.4 "Local Wisdom" and Children

Appreciation for Thailand's ethnic diversity increased in the late 1980s and 1990s, with the elimination of the communist threat and the surge of tourists interested in Thailand's "exotic" hill peoples. Section 46 of the 1997 "People's Constitution" gave "traditional communities" the right to "conserve or restore their customs, local knowledge, arts or good culture..." Similarly, the "child-centered" 1999 National Education Act permitted up to 30% of school time to be dedicated to local curricula and "local wisdom" – a category interpreted to include ethnic cultures and languages (Office of the National Education Commission 2003; Kosonen and Person 2014). Schools had great latitude in determining how to teach "local wisdom," with individual teachers crafting their own curricula related to local food, dance, occupations, and folk religion. There were a few cases of ethnic languages being taught as subjects under this rubric, while numerous schools in the North added or strengthened courses teaching the ancient Lanna script.

This set the stage for Mahidol University's first foray into language revitalization and MTB MLE. Motivated in part by the "endangered language" movement launched in the 1990s by Yale University's Douglas Whalen, Mahidol linguists and graduate students began working with members of the Chong community in

Fig. 15.1 Signage in Pattani, illustrating three different scripts used in the area to write Malay: Thai-based, Romanized, and Arabic-based (Jawi) (Photo courtesy of Dr. Suwilai Premsrirat)



Chanthaburi Province in 1999 to develop a Thai-based orthography for the Chong language, document elements of traditional Chong culture, and create a Chong language and culture course, taught by community volunteers, for use in the local schools (Suwilai 2006b).

Although the Chong language course was only a small part of an otherwise monolingual Thai curriculum, and although most of the children spoke more Thai than Chong at home, students in the pilot project showed dramatic improvement on the Primary Grade 3 National Test – so much so that parents from neighboring villages transferred their children to project schools. Those involved suspect that this was due in large part to the way in which Chong literacy skills were taught – a ‘multi-strategy’ method incorporating elements of phonetic and whole language approaches, with a large dose of creative writing, which had the unplanned side effect of strengthening the children’s Thai literacy skills.

As news of the project spread, other ethnic communities approached Mahidol University asking for similar assistance; over the next decade, the Mahidol University Resource Center for Documentation, Revitalization and Maintenance of Endangered Languages and Cultures would cooperate with the Thailand Research Fund to facilitate language revival projects in 23 languages. In some communities, the ethnic language was taught as a subject in local primary schools, while others relied on community learning centers for language transmission (Suwilai [forthcoming](#)) (Fig. 15.1).

15.5 The MTB MLE Movement

The first attempt to implement mother tongue-based multilingual education (MTB MLE) in Thai government schools dates back to a UNESCO workshop on literacy for indigenous people in Raipur, India, in 2001 (Kosonen, 2014, March 21, personal communication). In attendance was Dr. Suchin Petcharugsa from the Office of the Non-Formal Education Commission’s (OFNEC) Innovation Lab in Lampang.

Suchin had long been aware of both the low literacy rate among members of local ethnic communities in the North and the shortcomings of previous efforts to address the problem. SIL consultant Kimmo Kosonen's presentation on MTB MLE, wherein the ethnic mother tongue is used as the main medium of instruction for all subjects in the early years of schooling before systematically bridging to the national language, inspired Suchin. He subsequently initiated a MOE-supported, UNESCO-funded MTB MLE program in four OFNEC community learning centers in the Pwo Karen-speaking district of Om Koi, Chiang Mai – then considered the least developed district in the Kingdom. Payap University linguists and NFE personnel worked alongside community members to develop a Thai-based orthography, primer, and literacy materials, as well as “Thai as a Second Language” lessons relying on total physical response and other well-known second language teaching techniques.

The Northern Pwo Karen MTB MLE Project was a success. Teachers reported higher attendance, greater enthusiasm, and improved academic performance. Media reports, including a television documentary, touted the program's achievements. Chaturon Chaisang, in his first term as minister of education (2005–2006), visited the project twice, declaring it a “miracle” that should be expanded to hundreds of formal schools (Person and Wisanee 2007). Numerous education officials from other regions of the country made pilgrimages to Om Koi, and the term *phasa mae* (ภาษาแม่) (“mother tongue”), not previously used widely in Thai, became more recognized.

Though its legacy was broad, the Northern Pwo Karen MTB MLE Project itself was short lived, discontinued in 2006, through the combination of staff turnover (long a problem in remote areas), confusion over the use of a Thai-based alphabet for writing Pwo Karen, and bureaucratic discomfort with what was perceived as a “radical” idea.

Meanwhile, long-simmering discontent in Southern Thailand erupted violently in 2004; the ensuing decade would witness some 6000 deaths, including more than 170 teachers killed in transit to, or sometimes inside, their schools (Human Rights Watch 2010; *The Nation* 2014; *Bangkok Post* 2015a). In 2005–2006, the National Reconciliation Commission (NRC), chaired by former Prime Minister Anand Panyarachun, recommended bilingual education as part of the solution (Macan-Markar 2012). On his first day as Minister of Education in August 2005, Chaturon Chaisang declared that bilingual education for Southern Malay speakers and Northern hill people would be among his five top priorities (*The Nation* 2005). The Ministry of Education subsequently approved the use of the Patani Malay language alongside Thai in government schools in the Deep South but offered no guidelines on how that could actually be accomplished.

Dr. Gothom Arya, a Thai peace advocate who played a key role in the NRC, discussed the bilingual education recommendations with his Mahidol University colleague, linguist Dr. Suwilai Premsrirat. As a result of these conversations, as well as her experience researching Patani Malay oral poetry, Suwilai decided to spearhead a 9-year “strong model” MTB MLE pilot project in the Deep South, wherein the mother tongue in spoken and written form would be used, in varying degrees,

each year such that the original cohort would complete primary Grade 6 in March 2016.

At the same time that Mahidol University initiated MTB MLE in the South, a Thai nongovernmental organization, the Foundation for Applied Linguistics (FAL), in cooperation with the MOE's Bureau of Academic Affairs and Educational Standards, with backing from Swiss-based Pestalozzi Foundation, would begin "strong model" MLB MLE programs in four Hmong and two Pwo Karen schools in northern Thailand, as well as one Mon school in the West. FAL's approach to MTB MLE was similar to Mahidol's in most respects.

Mahidol University and FAL thus developed:

- Technical expertise in operating MTB MLE programs.
- Mother tongue curriculums linked to Ministry of Education objectives and indicators for kindergarten and primary school students.
- A wealth of mother tongue materials in several languages.
- A "Thai as a Second Language" course for ethnic children.
- A pool of internationally recognized research demonstrating the effectiveness of the MTB MLE approach – particularly in relation to dramatic improvements in Thai language abilities, literacy, and numeracy (Wanna 2009; Supalak et al. 2010; Walter 2011).

Nevertheless, these "pilot projects" MTB MLE programs were the exception, not the rule. They were benefactors of special permission but lacked the backing of a national policy.

15.6 The Royal Institute of Thailand's National Language Policy

Language policy was a major topic of discussion during the First World Congress on the Power of Language held in Bangkok in May 2006. As a result, Dr. Udom Warotamasikhhadit, the doyen of Thai linguists and a fellow of the Royal Institute, felt that the time had come for Thailand to develop a comprehensive national language policy. He noted that if a "new" country such as Timor-Leste had an explicit national language policy, surely a long-established kingdom should have one. Dr. Udom felt that the Royal Institute, with its authority over Thai language standardization and its historical role as a high level academic organization reporting directly to the prime minister on issues of national importance, would be the natural body to draft such a policy (Person and Udom 2011; Kosonen and Person 2014).

A few months later, then Prime Minister Thaksin Shinawatra signed a memo appointing the Committee to Draft the National Language Policy (NLP) under the authority of the Royal Institute. Six subcommittees were formed by the Royal Institute, as follows:

- Thai for Thai Students and Thai Nationals
- Regional Languages (including ethnic languages)

- Languages of Commerce, Neighboring Languages, and Working Languages
- Teaching Thai to Migrants Seeking Employment in Thailand
- Language Needs of the Visually and Hearing Impaired
- Translation, Interpretation, and Localization Standards

In addition to regular committee and subcommittee meetings, from 2006–2010, the NLPC held no fewer than 17 public forums to gather information and seek input. Many events were broadcast on radio or televised live via the internet. A wide variety of individuals participated, including Thai government representatives, academics, educators, NGO staff, United Nations officials, academics, business people, and professional translators (Person and Udom 2011).

The MTB MLE pilot projects then being implemented by Mahidol University and FAL had a strong impact on the ethnic language policy – which, by its very nature, was the most controversial aspect of the National Language Policy (NLP). The evaluation process put in place at the outset of the MLB MLE pilots gave the Royal Institute the empirical evidence needed to support its position that ethnic languages could and indeed should be used as languages of instruction in some schools. Community members, teachers, and school administrators involved in the pilot projects added a grassroots perspective to the public forums. The newly formed Network of Indigenous Peoples of Thailand (NIPT), which seeks to speak as a single voice on behalf of 32 ethnic groups, invited NLPC members to its annual meetings, contributing experience gained interacting with the government on a wide variety of related issues (citizenship, land rights, health, education) (Kosonen and Person 2014).

The NLP draft that emerged from this process was forwarded to Prime Minister Abhisit Vejjajiva. By approving the draft on February 7, 2010, Abhisit empowered the Royal Institute to create an implementation plan (Person and Udom 2011). Shortly thereafter, the NLP was translated into English.

The international community welcomed the NLP because of its provisions for ethnic languages. UNICEF and UNESCO praised it as a model for Southeast Asia, noting that the NLP showed that Thailand was moving toward fulfilment of the commitment it made by its signing of the United Nations Declaration on the Rights of Indigenous Peoples (2007). Prime Minister Abhisit was invited to address the 2010 International Conference on Language, Education, and the Millennium Development Goals (sponsored by a consortium including UNESCO, UNICEF, Mahidol University, Save the Children, and SIL International), where he stated:

I recently approved the Royal Institute of Thailand's National Language Policy, which maintains the right of ethnic children to have their mother tongue included in the school curriculum. We firmly believe that the inclusion of local languages in schools helps students improve their academic performance and strengthen their aptitude in the Thai language, while preserving the individual languages and cultures that make us unique. I am also in the process of appointing a cabinet-level, strategic implementation committee to ensure the new Language Policy is put into practice in areas such as education, health care, regional commerce and human security. (Abhisit 2010)

News of the policy spread. The Institute of the Korean Language invited a Royal Institute representative to present the policy at the International Academic Conference on Language Policy in Commemoration of the 20th Anniversary of the National Institute of the Korean Language (2010). A similar presentation was made at the Vietnamese Institute of Linguistics in 2010. The Kingdom of Bhutan sent two official delegations to the Royal Institute (2010) with the express purpose of learning about the NLP. Several prominent political figures, including Nepali Constitutional Drafting Committee member Dr. Toya Nath Bhattarai and Timor-Leste First Lady Kirsty Sword Gusmão, requested copies of the policy. The policy was referenced in a number of United Nations sponsored meetings attended by ASEAN education officials and policy makers, as well as in UN recommendations for education reform in several developing countries, most notably Myanmar.

The policy draft was reaffirmed on March 23, 2012, by Abhisit's successor, Prime Minister Yingluck Shinawatra, who likewise ordered the formation of an inter-ministry NLP implementation committee headed by the Royal Institute. The work of that committee continues today.

15.7 MTB MLE Today: The Ongoing Challenge

Through the efforts of the Royal Institute, Thailand has, on paper, a National Language Policy that values ethnic languages and supports their use in education. Through the efforts of academics, NGOs, local educators, parents, and others, the 2015–2016 academic year witnessed 9 ethnic languages being used in 32 MTB MLE schools in Thailand's far North, West, and Deep South.

But what does the future hold? Events of late 2014 and early 2015 demonstrate both the challenges and opportunities. On December 16–17, 2014, the Faculty of Education of Yala Rajabhat University (YRU) hosted a MTB MLE exhibition, showcasing their European Union-funded MTB MLE teacher training program. Over 200 parents, teachers, school administrators, and students attended (RILCA 2015). Thirty YRU education students nearing completion of their year-long teaching internships in thirteen Southern MTB MLE schools shared personal experiences while presenting data charting their students' academic progress. Top YRU administrators hailed MTB MLE as the solution to the South's long-standing education problems, proud of the role YRU is positioned to play if MTB MLE is to be expanded to the 770 government primary schools with 100% Patani Malay-speaking student bodies.

On February 21, 2015, in Bangkok, Mahidol University hosted a celebration of UNESCO's International Mother Language Day, attended by representatives from 23 ethnic groups, UNESCO officials, and Thai academics. The ethnic participants shared their language revitalization efforts, both school-based and community-based, and thanked the university and the Thailand Research Fund for helping them preserve their cultural heritage.

Also on February 21, the northern city of Chiang Mai witnessed the largest public gathering in Thai history ever to address the language-in-education issue, as the “Network for Indigenous Education” – an umbrella group comprised of 21 Thai NGOs – hosted an ambitiously titled conference: “Mother Tongue: A Gateway to Successful Education for the Ethno-linguistic Minority People and Chiang Mai Provincial Education Reform Towards National Education Reform.” Funded by the Chiang Mai Provincial Government as part of its campaign for greater local autonomy and culturally relevant education, this event attracted over 400 ethnic people, politicians, education officials, and NGO representatives. MTB MLE was the centerpiece of the meeting, with teachers and children from several ethnic groups demonstrating MTB MLE teaching techniques. Lampang Rajabhat University’s Faculty of Education signed a Memorandum of Agreement with FAL to initiate a training program for MTB MLE teachers and administrators. Key stakeholders formed the Multilingual Education Club, to serve as a common voice for the movement. Expansion plans were announced: the 2015–2016 academic year thus saw FAL and OBEC cooperating on MTB MLE projects in 8 ethnic languages in a total of 19 schools in the North and West.

On March 5, however, senior MOE officials were told that “bilingual programs” were to blame for ethnic students’ low performance on the Primary Grade 3 National Test. Deeply concerned, Minister of Education Admiral Narong Pipatanasa ordered an investigation of MTB MLE schools, stating that such programs might be closed down and replaced with Thai-only curricula (*Bangkok Post* 2015b; *Matichon* 2015). A flurry of smaller meetings ensued, with MTB MLE proponents welcoming the Minister’s investigation, pointing out that only ten schools nationwide have implemented MTB MLE long enough to have students sitting for the Grade 3 test (on which they outperformed ethnic students in the comparison schools) while over one thousand schools with predominantly ethnic student bodies use the “normal” Thai-only approach (Foundation for Applied Linguistics 2015).

There is therefore an ongoing, and, we hope, healthy debate on the role of ethnic languages in Thai education, as well as the place of ethnic people in the national development agenda. It is not so much a debate between individuals, but rather the juxtaposition of differing linguistic, political, and educational viewpoints. Is linguistic diversity a truth to be embraced, or an obstacle to be overcome in the quest for national unity? Is “submersion” in Thai-only classrooms the best way to equip ethnic students to participate in national development, or could it actually be holding them back? Can ethnic people simultaneously sustain positive attitudes toward their ethnic identity and their national identity as Thai citizens, or must they choose one over the other?

The ethnic language dialogue, in turn, touches upon larger questions facing Thai educators. Will increased local autonomy in education policies and practices improve student performance, or is a strongly centralized system the best guarantee of success? How will the education system balance visionary and reactionary impulses in Thai society? And, crucially, how can innovation be brought from the periphery to the mainstream?

Optimistically, we hope that policy makers will recognize the benefits of MTB MLE and encourage its implementation in hundreds of primary schools, both government and private, throughout the Deep South and in remote parts of the north. Practically, we believe that such expansion should be systematic and structured rather than speedy, supported by clear financial and human resource policies. We acknowledge that MTB MLE cannot be realistically implemented in all situations, due to a diversity of mother tongues in a single classroom (as is the case in schools serving clusters of ethnic communities in the north) or in places where student mobility is high (such as in schools serving the children of migrant workers from neighboring countries), but feel that the use of “Thai as a Second Language” materials developed in the MTB MLE projects would provide a dramatic improvement over current practices.

Thus, at the close of a decade of MTB MLE in Thailand, Mohammad Abdul Kadir's key question from 1989 could be rephrased: “Given that the truths from MTB MLE research in a diversity of settings across Thailand have resulted in a new national language policy that is supportive of the unique educational needs of children whose mother tongue is not Thai, what practical steps will be taken to ensure that appropriate pieces of the plan are genuinely implemented in a way that brings maximum benefit to all the children of Thailand?”

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Part IV
Educational Issues: Quality

Chapter 16

Interaction of Education with Research and Development



Yongyuth Yuthavong

Abstract Education is related to research and development (R&D) in the sense that the latter requires learning experience and the former gains from new knowledge and technology. A positive relationship exists between higher education R&D expenditures and the quality of education systems in developing countries. Indeed, education and R&D form a continuum resulting in a body of knowledge and technologies which result in societal benefits. Thailand is a middle-income country, with low R&D expenditures, and the weakness in R&D is likely related to deficiencies in the education system in addition to inadequate financial resources. Vice versa, weakness in R&D likely contributes to weakness in the education system.

16.1 The Relationship Between Research and Development (R&D) and Education

Research and development (R&D) is considered to be an important factor contributing to the economic productivity of a country. At present, when the sustainability of development rather than economic advances alone should be the preferred outcome of national efforts, factors other than financial profits have taken on significance as aims of R&D, including environmental and social concerns/outcomes. Education is an integral part of R&D, not only because it should be an aim of this broadened vision but also because it is the essential factor underlying the success of R&D efforts. In short, R&D progress not only gives rise to success of the education system but is vitally dependent on the presence of a good education system as a foundation. This mutual reinforcement is a crucial concern, since it can lead to either a vicious or virtuous cycle, depending on the quality and effectiveness of the development policy of a country.

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The relationship between R&D and education can be direct or indirect. Direct relations can be seen in educational institutions which are doing R&D, mostly in the form of basic or applied research. Such research is commonly done in graduate schools or advanced undergraduate studies, linked to requirements for graduation. An outcome of such research is mostly in the form of new knowledge or technologies, reflected primarily in scientific publications, but also sometimes as patents or other forms of intellectual property. Another outcome is the production of graduates with research capabilities, who will go into the job market with professional proficiency and ability for active learning, a quality required in a fast-changing world. While new knowledge and technologies generated from academic research in educational institutions are important, it has been argued that the value of university research is mainly symbolic rather than directly contributing to economic growth (UNESCO 2014). The output of a university's research contributes to its rankings, which have been taken by many as an indicator of university quality, and therefore enhances the reputation of the university. A major benefit of research in academic institutions is therefore in attracting good students as well as producing quality graduates.

Indirect relations between R&D and education stem from the role of education in R&D in the private sector and research institutes in the government and other agencies. A good education system produces a good work force for R&D, in turn producing valuable outcomes in the improvement of products, processes, and services. In turn, economic growth resulting from such successful outcomes can then be a contributing factor for the development of a good education system, although this depends on a number of other factors as well. A number of universities have programs to turn this indirect relation into a more direct one, for example, by creating cooperative education schemes where students gain direct experience from participating in industrial R&D. At both the school and college level, there are many cooperative programs with the private sector, although these tend to be more practice-based than R&D-based.

Given these close relationships between R&D and education, it is not surprising that as indicators for competitiveness, they tend to show similar levels for a large range of countries. Figure 16.1, for example, shows a positive relationship between higher education R&D expenditures (as a percent of GDP) and the quality of education systems for a number of developing countries (Schwab 2012; UNESCO 2014). This implies either that the quality of education is enhanced by higher education R&D activity, or vice versa, or that both indicators reflect the maturity of the education and R&D systems of a country. In any case, the underlying factors responsible for the quality of the education system include the quality of human resources, as influenced by R&D directly or by the stimulating atmosphere generated by a R&D culture. The infrastructure for education quality is also similar to that for R&D quality, including availability of good information and communication technology, good campus infrastructure (libraries, scientific equipment, and work and study areas, for example), good basic facilities (public utilities and ease of access), and a conducive research environment. These common factors explain the correlation between educational quality and R&D expenditures.

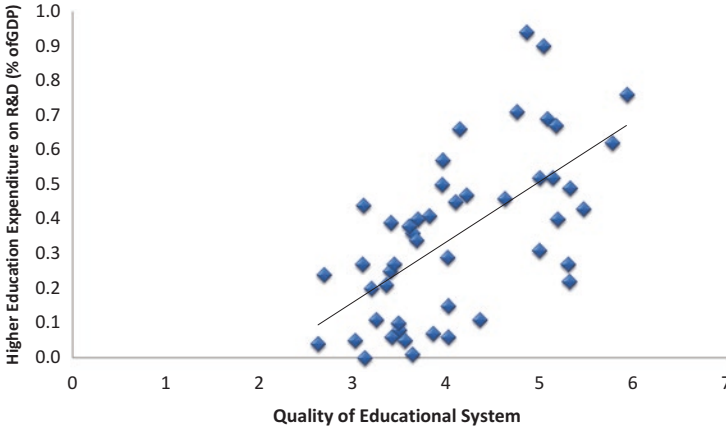
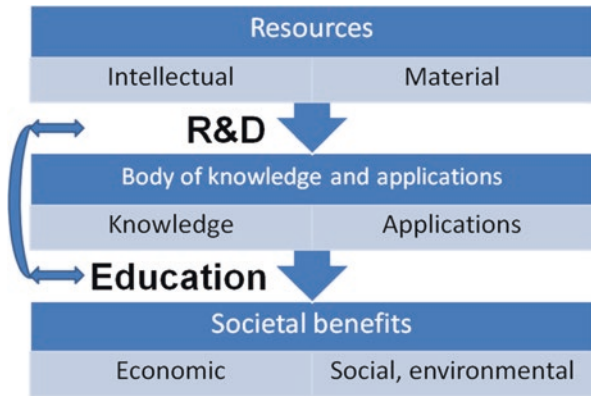


Fig. 16.1 The quality of the education system of a country is correlated with the expenditure on higher education on R&D. Data compiled from World Economic Forum (Schwab 2012) and UNESCO (2010) by Siriporn Pittayasophon

Fig. 16.2 Simplified diagram showing relative roles of R&D and education in turning intellectual and material resources into societal benefits. R&D is a major part of the process of gaining the body of knowledge and applications, and education is a major part in turning them into economic, social, and environmental benefits for the society



A more basic relation between education and R&D emerges as we consider the process by which we generate societal benefits. These outcomes are derived from both intellectual and material resources available to us. We can roughly divide this process into two steps (see Fig. 16.2). The first is R&D, which can be interpreted broadly as the process of generating new knowledge and applications. Presently, this is comprised of mostly scientific and technological components largely done in industrial and postindustrial societies. However, the broad definition of R&D covers all activities concerning the use of human ingenuity, skills, and original ideas to generate new knowledge and applications, embodied over time into traditional practices common to the society. This broad definition of R&D, not easily quantifiable by conventional “development” indicators such as R&D expenditures, applies especially to developing countries, which normally have only small R&D expenditures

and yet may be very rich in the stock of knowledge and applications. The second step of gaining societal benefits from intellectual and material resources available is education, both in the formal way through education institutions and in informal ways through the transfer of knowledge and skills outside the classroom. Considering the process of obtaining societal benefits in this way, we can see that R&D and education fit together on a continuum and are not mutually exclusive. The R&D process incorporates significant education character, and the education process requires reaching into the innovation domain of R&D. This conclusion is important when we consider the status and relation of R&D and education in a developing middle-income country like Thailand.

16.2 Historical Roots of R&D and Education in Thailand

With a long history, it is pertinent to examine the roots of R&D and education in Thailand. Like other societies, they have common roots in the long entrenched culture of learning. However, this culture emphasized learning and the use of embedded knowledge rather than free inquiries into new knowledge. Some aspects of the Buddhist religion encourage independent thinking and skepticism, but they are by far less prominent than traditional rote learning and the following of old teachings (see Chap. 3). Nevertheless, a considerable body of knowledge evolved in Thailand over the years, although it would not be classified as R&D. The gradual adoption of modern science and technology in Thailand, dating from around the middle of the nineteenth century, was linked to the transition of the Thai economy resulting from the opening to international trade, especially with the West. Up until then, the economy of the country, then known as Siam until 1939, had been mainly self-sufficient and based mainly on the subsistence level (Ingram 1971; Suthy and Chatthip 1981). With the rise of international trade, specialization in production occurred out of necessity, and agriculture became an important source of exports as well as subsistence, a feature which remains true to this day. This transition in the economy was reflected by parallel changes in science and technology, although on a rather small scale because of the lack of initial infrastructure. By the beginning of the twentieth century, agriculture as a part of modern science and technology—as distinct from traditional knowledge—had taken root in Thailand, coinciding with the development of the universities which grew with reforms in the education and public service sectors.

Modern R&D as a part of science and technology in Thailand can be said to have started around six decades ago, well after the establishment of the first university (Chulalongkorn University) a century ago in 1917. Graduate training and research mostly in medical science at Mahidol University was followed by expansion to other areas, including engineering and science at Chulalongkorn and agriculture at Kasetsart University. The establishment of major universities outside Bangkok, including Chiang Mai, Prince of Songkla, and Khon Kaen universities, saw the expansion of R&D to the provinces. The three King Mongkut's Institutes of

Technology, which began as technical colleges, were major initiators of R&D in industrial technologies. Universities with roots in higher education include Srinakharinwirot University in Bangkok, which began as a college of education, with campuses in the provinces which later became Mahasarakham University, Burapha University, and Thaksin University.

With few exceptions, R&D was confined to the higher education sector until only about two decades ago, when the dynamic private sector reached a stage where R&D would become a major instrument to enhance competitiveness in production and services. Starting first in major companies producing structural materials and agro-industrial products, the private sector is now responsible for approximately half of the share of R&D expenditures in Thailand (47% in 2013) and is poised to become the major player in the next few years (see OECD 2016).

16.3 Status of R&D in Thailand and Implications for Development

The status of R&D in Thailand in comparison with a number of developing and developed countries can be assessed by examining data on gross domestic expenditures on R&D (GERD) as a percentage of GDP and the number of researchers per million population. The data in Fig. 16.3 are taken from the *UNESCO Science Report* (UNESCO 2010) which show the status of various countries regarding their GERD and numbers of researchers. Data from Thailand are superimposed on this

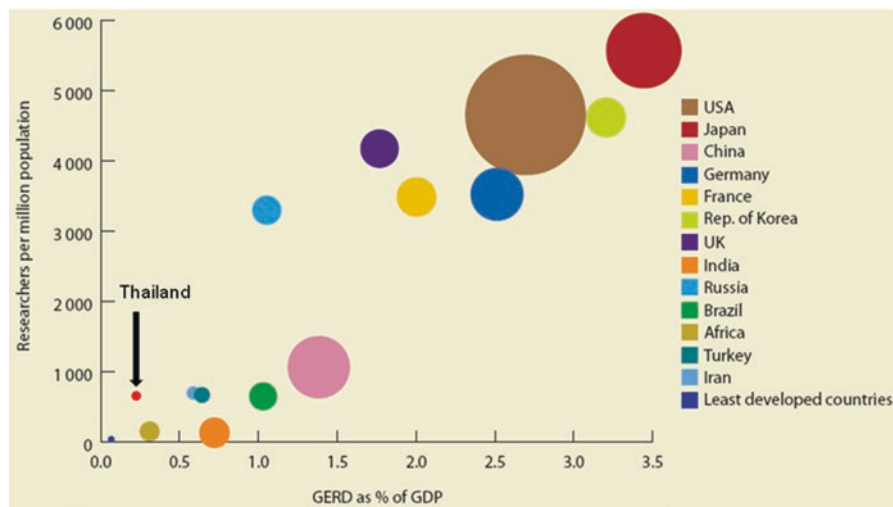


Fig. 16.3 The relationship between GERD (gross domestic expenditure on R&D) and researchers per million population taken from UNESCO [4] with the data from Thailand (2010) superimposed

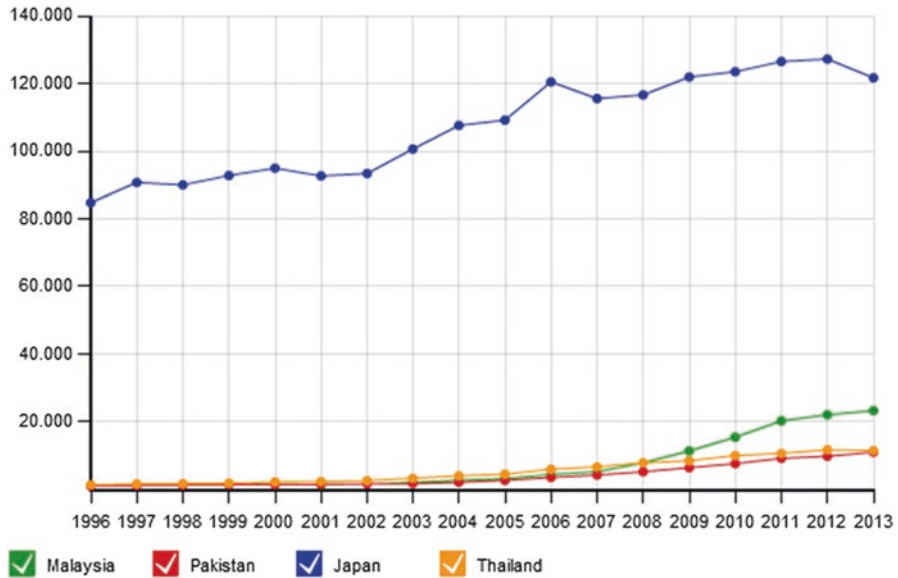


Fig. 16.4 Comparison of number of research publications from Thailand with Malaysia, Pakistan, and Japan. Figure derived from data of Sci MAGO 2014

figure to show the small size of both GERD and R&D human resources. Although some progress has been made in the last few years in increasing both expenditures and human resources, the results are still far short of the intended target, originally set for 2015 as 1% for GERD and 1500 R&D personnel per 1000,000 population. As of 2013, the actual GERD for Thailand is only 0.47% of GDP and 1921 R&D personnel (1055 in full-time equivalents) per 1000,000 population.

Given poor input in terms of GERD and R&D human resources, it is to be expected that the output of R&D is not very high by world standards. Comparison of Thailand with a few countries in Asia is illustrative. The output of R&D in terms of publications from Thailand is on par with Malaysia and Pakistan (see Fig. 16.4), while that from Japan is more than 20 times higher (SciMAGO 2014). It is also to be noted that while the increasing trend is quite strong for Malaysia, this is not true for Thailand and Pakistan. These data indicate that although Thailand is doing reasonably well in R&D as an advanced developing country, it still lacks the dynamism needed for strong sustainable growth. This conclusion has serious implications for the economy of the country, since it may not be able to mount a strong enough effort to escape from the “middle-income trap,” one that exists for many advanced developing economies with middle-income levels (\$1000 to \$12,000 per person per year in 2010). South Africa and Brazil are also examples of countries trapped at the middle-income levels. Thailand and even Malaysia may also be stuck in the middle-income trap because of their inability to raise national incomes to sufficient levels (Kanapathy et al. 2014). For countries like Korea, Singapore, and Taiwan, which have managed to escape from such traps, R&D was shown to be a strong positive factor underlying their success.

Another study, comparing policies for innovation financing in Singapore, Taiwan, Malaysia, and Thailand, has concluded that these countries can be divided into two groups in terms of technological learning and catching up. The first group is comprised of Taiwan and Singapore, with “learning-intensive” national innovation systems, enabling them to catch up technologically with the forerunners in certain industrial sectors (Patarapong and Jarunee 2012). The second group is comprised of Malaysia and Thailand, with less strong and coherent innovation systems and consequently less successful catching up and related industrial development. While the first group has managed to escape the middle-income trap, the second group is now stuck after impressive growth over a few decades. The innovation systems of both countries are relatively weak and fragmented, and technological capabilities of firms are relatively lower, with passive learning patterns. It is therefore crucial that Thailand learn from the more successful countries and gear up its innovation efforts. It is also important to realize that R&D is only a part of the innovation system, which needs to be supported through various schemes, ranging from tax incentives to grants, loans, and various financial schemes. Support for innovation other than financing is also important, especially in strengthening private firms and linkages between the private and public sectors, which employ most of the R&D personnel. We should now therefore turn to the higher education sector, the largest employer of R&D personnel and the largest producer of R&D in developing countries, including Thailand.

16.4 Role of the Higher Education Sector in R&D in Thailand

The higher education sector is comprised of universities, colleges, and other post-secondary institutions. Universities are major contributors to R&D activities and are the main suppliers of R&D human resources to industries in Thailand.

One measure of the status of R&D in a developing country is the ranking of its universities. The ranking lists for universities are both measures of educational quality and successful R&D efforts of the universities. Thailand only has a few universities in the top 500 of the world, as measured by a number of ranking systems. However, compared to other developing countries, Thailand is among those doing relatively well. For 2014, for example, *Times Higher Education* listed five Thai universities in the top 100 of those from BRICs and emerging economies, namely, King Mongkut’s University of Technology Thonburi (29), Mahidol University (52), Chiang Mai University (82), Chulalongkorn University (85), and Prince of Songkla University (89) (Times Higher Education 2014). This may be compared with 23 universities listed from China and 10 universities from India. However, in the latest such rankings (2017), Thailand’s universities have slipped rather dramatically with only two in the top 100, Mahidol ranked no. 76 and KMIT-

Thonburi ranked no. 91. Four are in the second 100, namely, Chulalongkorn at no. 113, KMIT-Ladkrabang at no. 145, Suranaree University of Technology at no. 192, and Khon Kaen University at no. 200 (Times Higher Education 2016).

Figure 16.5 shows that the higher education sector in Thailand is responsible for less than a third of total R&D expenditures, similar to the picture of the world average and the average for countries in OECD (Organisation for Economic Co-operation and Development 2014), including the most affluent countries of the world. The R&D expenditure for Thailand, both for the higher education sector and for all sectors, is some three times smaller than the world average and five to six times smaller than OECD average. It should be noted that there are more R&D human resources in the higher education sector in Thailand than other sectors, despite far less expen-

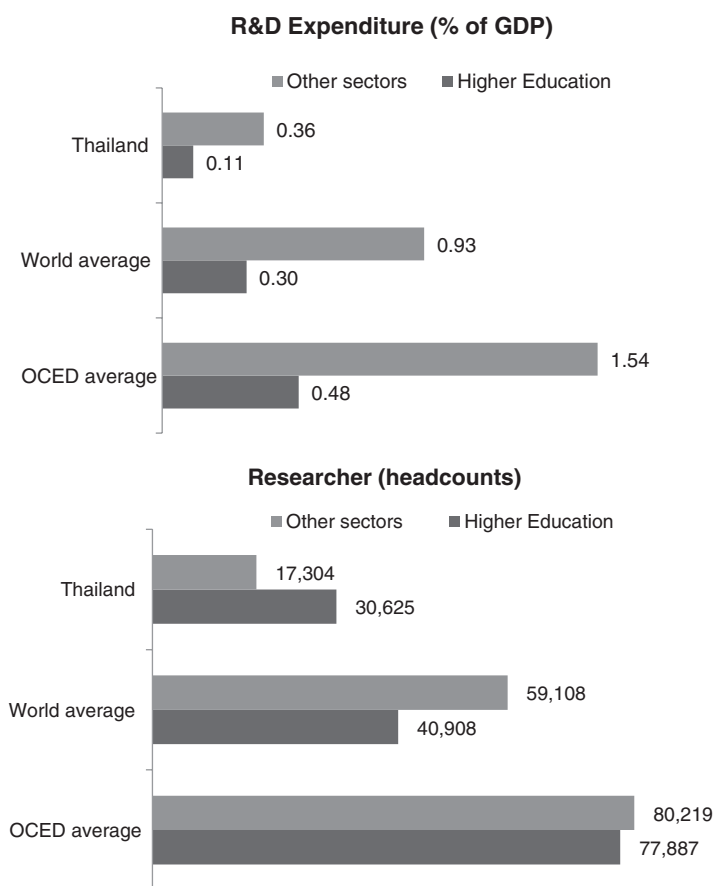


Fig. 16.5 R&D expenditure as percentage of GDP and the number of researchers in higher education and other sectors (2012–2013). Data compiled from UNESCO, OECD, and Office of Science, Technology and Innovation Policy, Thailand by Siriporn Pittayasophon (Source: UNESCO, OECD, STI Office)

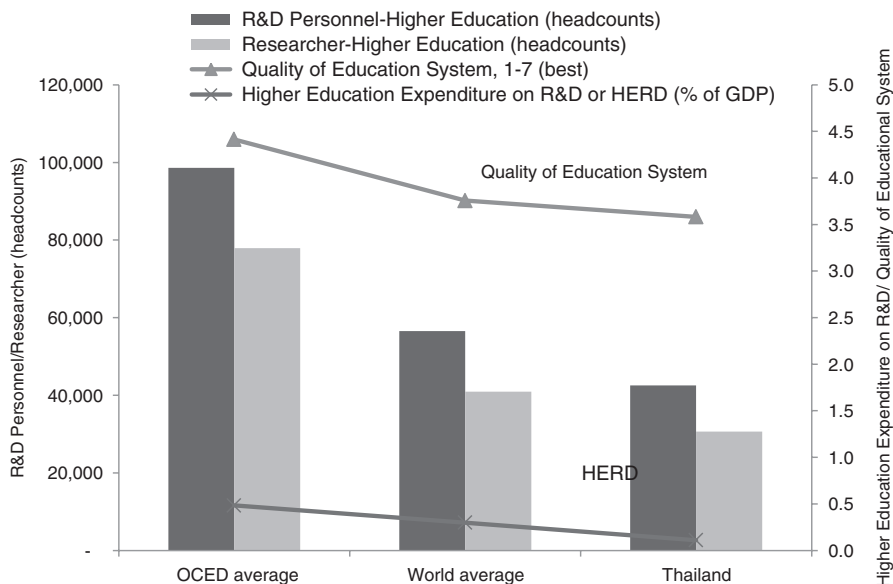


Fig. 16.6 The number of R&D personnel and researchers and R&D expenditure for Thailand compared to OECD average and world average (2012–2013). The quality of education system (2015–2016) reflects the R&D status as measured by these parameters. Data compiled from the statistics of UNESCO, OECD, WEF, and Office of Science, Technology and Innovation Policy by Siriporn Pittayasophon (Source: UNESCO, OECD, WEF, STI Office)

ditures. This means that the total expenditures per researcher in the higher education sector in Thailand is far less than in other sectors, a situation different from the world and OECD averages. This pattern has been established at least for a decade and needs to be addressed in order to improve the quality of R&D in the higher education sector.

Figure 16.5 shows that the quality of the education system as a whole in Thailand reflects the status of R&D, with lower numbers of researchers and allied R&D personnel in Thailand than world and OECD averages and low expenditures on R&D in the higher education sector. If Thailand is to achieve higher quality for its education system, therefore, it also has to achieve a higher status for R&D. The reverse is also probably true, that is, if the quality of R&D is to be improved, the quality of the education system must also be improved (Fig. 16.6).

16.5 Lessons Learned: Poor Education Leads to Poor R&D and Vice Versa, a Vicious Cycle and Circle

It can be concluded that the status of R&D in Thailand is still weak compared with developed countries, such as those in the OECD. This is probably related to the weak status of education. Since the higher education sector is responsible for a

major part of R&D in Thailand, the weak status of R&D is partly explained by weakness of the higher education sector. However, this is only part of the explanation. Perhaps a more important reason is the weak capability of R&D human resources, which is mainly derived from the education sector. The weak higher education sector, as reflected by world and regional rankings, gives rise to weak R&D person power, unable to produce substantial output both in terms of quantity and quality of R&D. The situation is worsened by the problem that R&D expenditures as well as R&D person power are well below international standards. Thailand is a country with economic output on par with other advanced developing countries. To achieve sustainable economic development, it has to increase investments in R&D and the size of R&D personnel considerably. The latter would need to have higher capability, so as to produce higher output with improved quality. In line with this recommendation, the National Science Technology and Policy Office (NSTIPO) recently announced that it will increase the number of its researchers four-fold by 2036 to bolster innovation in industry (Apinya 2018).

While poor education leads to poor R&D, the reverse is also true. A poor R&D infrastructure and personnel, especially in the higher education sector, lead to graduates with low capability and inadequate experience. These graduates constitute the work force for the education sector, especially the higher education sector. This vicious cycle needs to be stopped by increased commitments to strengthen both R&D and education. Otherwise we will fail to respond to the many new challenges of what Schwab (2016) calls the “fourth industrial revolution.” Such efforts will take time and visionary policies at both the governmental and institutional (colleges and universities) level. The private sector also needs to increase its efforts in R&D (see Lertluck and Srisamorn 2016), and for higher education institutes, there needs to be greater and improved R&D-related education, such as industry-linked courses and work-integrated classes. An encouraging recent development was the launch of the Siam Innovation District (SID) at Chulalongkorn University with financial support from three Thai corporations (Suchit 2018). In an important new development, Prime Minister Prayut in August 2018 ordered the creation of a new Ministry of Higher Education, Research and Development, which will be a merger of the OHEC and the Ministry of Science and Technology.

Only with substantially increased efforts and input into both R&D- and inquiry-based learning over the next decade or so would Thailand be able to break the vicious cycle of poor R&D and education and embark on the course of sustainable economic growth based on sound knowledge, dynamic R&D, and resulting innovations.

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Chapter 17

The Evolution and Current Status of STEM Education in Thailand: Policy Directions and Recommendations



Sumonta Promboon, Fred N. Finley, and Kittisak Kaweevijmanee

Abstract The concept of STEM education was introduced in Thailand around 2012, and the implementation of STEM education is now required. Our review of the evolution of STEM education in Thailand, the current status of its development, and the need for STEM education results in a set of related recommendations. The key one is that a set of characteristics of STEM education be used in different combinations to formulate multiple valid forms of STEM education. The various types should be tailored to meet regional or local contexts and needs. The effects of using different forms of STEM education will be enhanced if STEM ideas and practices are taught in relation to authentic real-life activities (authentic learning). The use of such activities can be enhanced by developing moderate levels of integration between the academic and vocational education systems. We also propose that developing alternative forms of STEM education be done as modules that can be evaluated, revised, and shared rather than as a single, one size fits all curriculum. In addition, we suggest that authentic assessment systems will need to accompany these innovations. The use of multiple forms of STEM education can effectively enhance STEM education for all and help address critical human resource needs. Those needs include enhancing the STEM literacy of the general population as well as politicians and government officials, increasing the availability of qualified people to work in STEM-related fields, and expanding the pool of people who consider entering STEM fields to contribute to research, development, and innovation.

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17.1 Background on STEM Education in Thailand

This chapter synthesizes the background and evolution of STEM education in Thailand and the major challenges currently facing Thai STEM educators to develop high quality and excellence in this area of growing importance. STEM refers to science, technology, engineering, and mathematics.

Science and mathematics are compulsory subjects in basic education in Thailand. They are required in both primary and secondary education. In both vocational and higher education, minimum science and mathematics, about six credit hours, are also required as part of the common core or the general education component of the standard bachelor's degree 120 credit-hours curriculum. General education in higher education comprises about one quarter of the total credit/hour requirement. Technology was included in the primary education curriculum under a different subject, formerly called "basic work skills," but in the 2008 National Basic Education Curriculum, it became one of the eight required areas of basic education and is called the "technology" component. The aim of technology education in the early years is to involve students in hands-on activities that are appropriate for their ages and related to necessary and useful skills in their daily lives. Engineering, on the other hand, has been regarded as a professional field offered only at the university level.

To include the four subjects integrated together in the acronym "STEM" is something new in Thai education. The STEM education concept was introduced to Thailand around 2012 at the time the country was thinking about another round of education reform as a follow-up to the major reform introduced in 1999 (ONEC 2001, 2003, 2009). Thinking about education reform has inspired ideas and discussion about how STEM could be instrumental in reforming and rethinking science and mathematics education. The key idea is to move toward a more innovative and integrated teaching and learning approach to prepare young generations more effectively to meet the complex and changing challenges of the twenty-first century and a knowledge economy.

The idea of STEM was first formally discussed among Thai and US educators at the 6th Thai-US Education Roundtable at the University of Minnesota in September 2012 (Thawat 2012). Since then there have been a number of forums discussing how to develop STEM education formally in Thailand.

This chapter describes the development and evolution of STEM education in Thailand and related policies. It then discusses some existing major activities of STEM education in Thailand and synthesizes the major challenges Thailand faces in developing a new roadmap to high-quality STEM education. A primary goal of this effort is to produce competent human resources for a future workforce that will help Thailand move beyond the "middle income trap" (Somchai 2012). However, as will be discussed later, this should not be the only goal for STEM education.

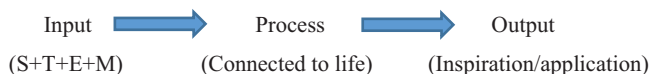


Fig. 17.1 An illustration of the STEM model proposed by Supot Hannongbua (Source: Supot 2013)

At present, a few extensive descriptions of STEM have been provided by various scholars and agencies, and those which often appear publicly can be summarized as follows:

Montri Chulavatanatol¹ has emphasized the positioning of STEM within education as a whole. He argues that STEM education is a new approach to teaching science and technology that motivates students to learn with enjoyment, resulting in better performance (in learning), and enhances their innovative capabilities. Montri also has linked well-educated STEM students to employability, preparedness for further education, and for future life (Montri 2014). By this definition, STEM is not only an integration of knowledge from four different subjects but rather an approach that allows students to excel in their further education, careers, and life itself.

Supot Hannongbua² extended the scope of STEM from education into career and research. By linking three key phrases, “integration,” “connected to life,” and “inspiration and/or application,” Supot described STEM by using the diagram above (Fig. 17.1).

STEM is thus described as “an integration of (knowledge in) science and engineering skills plus technology for solving problems and applying it in daily life” (Supot 2013). Integration, of course, requires an understanding of fundamental and rigorous knowledge of each individual topic, and this requirement is significant in STEM teaching.

Furthermore, teaching methods are considered critical to successful STEM learning. Learning would occur during discussion in a classroom or in practical works such as laboratory experiments or science projects where a knowledge of different topics or subjects are linked together to explain a specific phenomenon. In the process, students are provided with opportunities to improve their creativity and ability to think outside the box. However, it is important to note that the teaching methods do not always have to be novel or process-oriented.

The National Science Technology and Innovation Policy Office (STI) in collaboration with the King Mongkut University of Technology Thonburi (KMUTT) describes STEM education as a way to prepare students/learners through the application of a backward design method. In this way, frontier technologies and careers in science and technology are placed in a central position and the four elements in STEM are used to explain the development of such new technologies or as an application related to a possible career. *Context*-based learning through various active learning tools such as project-based learning will motivate students to learn new

¹Chairman of IPST (as of 2015).

²Dean of the Faculty of Science (as of 2015).

knowledge of science and mathematics and inspire them to pursue their study in STEM fields in the future. In the case of STI and KMUTT, an electric train technology and logistics was selected as a thematic context in a pilot program implemented for a selected group of upper secondary students (Komkrit 2014). This program relates directly to sustainable development and the problem of global warming.

More recently the Institute for the Promotion of Science and Technology (IPST) defined STEM as “an educational approach that integrates science, technology, engineering, and mathematics by focusing on problem solving in everyday life and professional undertakings” (IPST 2015, p. 3, see *STEM Network Manual*). IPST also indicated that a STEM learning organization should (1) use an integrated approach to teaching and learning, (2) link multidisciplinary content to daily living and work, (3) focus on critically needed twenty-first-century skills, (4) intellectually challenge students, and (5) provide opportunities for students to express their ideas and learning of the content (IPST 2015). These ideas from IPST deserve special attention because that organization has moved aggressively to develop and implement innovative STEM programs.

In conclusion, no single definition of STEM education has been used in Thailand. The existing meanings vary from one setting to another, depending on the context and distinctive perspectives. Furthermore, some of the attempts to define STEM have been less specific than is what is needed. This is the case in other places in the world as well. Perhaps it is not possible or even desirable to formulate a single definition for STEM this early in the process of trying to understand the potential value of the general idea. It may be best to create a set of characteristics of STEM to be used as guidelines for the development of *multiple* forms of curricula, instruction, and assessment.

An initial set of characteristics of STEM has been gleaned from various national and international sources and was initially developed for IPST and is adapted here in light of the above (Finley 2012). We do not claim that this is the only possible set of characteristics but only that they offer a valuable starting point that can be critiqued and improved by experience. We cannot even yet specify some subset or number of characteristics that have to be met to claim a program qualifies as being a valid STEM program. We simply propose that the STEM programs can be described in terms of the following characteristics and then validated by research and professional judgments. STEM education would be valid if it has a significant number of the following characteristics:

- Promotes students learning with joy, which benefits their future and present personal, civic, and professional lives.
- Relates directly to real-life activities from business and industry, government, and NGOs and cultural or community activities in local, regional, national, or international communities (see Barell 2016; Pahomov 2014).
- Engages students in studying critical topics such as health, energy resources, natural resources, environmental quality, natural hazard mitigation, the frontiers of science, technology, engineering, mathematics (PISA 2006), and food resources.

- Uses at least two of the STEM subjects simultaneously. A preferred option is using three or all four of the subject areas simultaneously, but we have too little experience with STEM to recommend this course at this time.
- Requires knowledge and applications of the domain specific, core, and cross cutting and practices of the subjects.
- Provides student-centered instruction.
- Includes substantial interactions with the local, regional, national, or international communities as part of the instruction. The interactions can be the participation of local people in the schools, students studying in their communities, case studies, community-based projects, service projects, and applied research projects.
- Requires students to do what they will have to do as employees and citizens, that is, produce artifacts that have a counterpart in the real world.
- Requires students to communicate the products of their instruction to people from their community, teachers other than their own, or students other than their classmates.
- Requires and holds students accountable for being able to apply the subject matter rigorously in the planning, description, explanation, and justification of the products that result from their instruction.
- Requires students to provide justified descriptions, explanations, and predictions related to select phenomena through the lenses of multiple relevant disciplines. For example, carbon cycling can be examined in terms of each of the four STEM disciplines plus the environmental sciences, social sciences, and humanities such as the history and the economics of our use of fossil fuels.
- Provides opportunities for teaching about the nature of science, technology, engineering and mathematics, and the interactions among those fields and society.
- Encourages instruction that has students working and studying in teams (cooperative learning) (Johnson et al. 1994).
- Uses information technologies, communications technologies, and computer-based instrumentation (Ramírez Montaya 2017).
- Provides opportunities to explore many levels and types of possible STEM careers.

Given the above, we see few problems to get all parties to agree that STEM education should be on the national agenda as an integral part of the current education reform movement. Most stakeholders recognize the importance of new STEM approaches. If multiple ways can be identified in which the idea of STEM can be employed effectively, then there will be better opportunities of meeting the common objectives of motivating and inspiring students to continue their interest in STEM fields and in the process develop their creativity and capacity for innovation.

17.2 The Evolution of STEM Education in Thailand

17.2.1 *Science and Technology Flows from the West*

Thailand was historically a Buddhist and agricultural country. Even now its economy, culture, and tradition have been strongly based on those two important influences. Therefore, traditional technologies in agriculture and the arts and crafts have been the foundation of the Thai people's past sufficiency economy lifestyle, heavily dependent on natural phenomena and resources. With its abundant and diverse agricultural resources, many in rural Thailand lived a life of "affluent subsistence." The late HM King Bhumibol who traveled to every district (nearly 900) of Thailand insightfully commented that those villages not connected to the global economy through exporting seem to the best off.

Modern science and technology from the Western world were introduced into Siam beginning in the Ayutthaya period, especially during the reign of King Narai (1656–1688). The transfer of technology and knowledge from the West was much increased later on in the Rattanakosin Period, starting from 1782 until the present, when Bangkok was established as the new capital. At that time the whole Southeast Asian region was threatened by the aggressive imperialism of Western countries, and most Asian countries became colonized. The kings of Thailand saw a great need to develop the country according to Western standards. Therefore, modern science and technology were promoted urgently as an important way to demonstrate progress as a modern country. During King Rama III's reign (1824–1851) many modern technologies from abroad were introduced into Siam. The threat of Western imperialism to Siam started in King Rama IV's reign (1851–1868) and was heightened during the King Rama V reign (1868–1910). Somehow Thailand survived the high risk of being colonized by the Western powers at that time, and the country became "modernized" or "Westernized" in many ways while retaining its own old rich traditions. Modern science and technology introduced from the West were an integral part of the Westernization process.

In 1982, the Thai scientific community led by the Science Society of Thailand under the patronage of His Majesty the King requested the government to establish the 18th of August as National Science Day to honor King Rama IV, the late King's great grandfather, as the "Father of Science in Thailand" (Science Society 1998). On this date in 1868, King Rama IV calculated correctly and precisely the site and the time of the full solar eclipse in Siam. He did not just promote modern science and technology, but he himself was a scientist, especially in the field of astronomy. The King Rama IV and King Rama V reigns were the age of reform and development, and science and technology were regarded highly as important tools for the country's development (see Wyatt 1969).

17.2.2 Science and Technology As Tools of Development

The development of science and technology reached another major milestone in the following reign of King Rama VI (1910–1925) when he established Chulalongkorn University in 1917 to honor King Chulalongkorn the Great (King Rama V), his father. The first four faculties were Medicine, Engineering, Arts and Science, and Public Administration (Chulalongkorn 2014). The first group of Bachelor of Science degree students graduated in 1935. Eight years later the Faculty of Arts and Science was split into two faculties, marking the first Faculty of Science in Thailand. The three faculties, the Faculty of Science, the Faculty of Engineering, and the Faculty of Medicine, were institutions for high-level human resource development in modern science and technology, training scientists, engineers, and medical doctors, including science teachers, for Thailand as a whole.

Many outstanding Thai students were given scholarships to study science and technology in the West during that time, and the graduates returned from overseas to be the founders of many science and technology organizations, especially the faculties of science, engineering, and medicine of new universities, and ministries/authorities in areas such as communication, agriculture, public health, and the electricity generation authority. The Science Society of Thailand founded in 1948 came under the patronage of His Majesty King Rama IX 3 years later. Similarly the Council of Engineers Thailand that was established in 1999 has also been under royal patronage. These nongovernmental organizations were established to promote science and technology in Thailand.

The Ministry of Science, Technology, and Energy (now the Ministry of Science and Technology) was established in 1979. In 1991 the National Science and Technology Development Agency (NSTDA) was developed, and in 2008 the National Science, Technology, and Innovation Policy Office (STI) was established. These are the main organizations that promote science and technology in Thailand. Science and technology have gained more and more recognition as powerful tools for national and regional development (see Narasimharao 2017). The national social and economic 5-year plans, since the first plan (1961–1966), have emphasized this important role of science.

17.2.3 Expansion of Science and Technology Education

After the establishment of the first Faculty of Science at Chulalongkorn University, currently about 120 faculties of science or science and technology in both public and private universities have been developed in Thailand. From one initial Faculty of Engineering at Chulalongkorn University, now there are about 65 faculties of

engineering in Thai universities. There are hundreds of other faculties of specialized or applied sciences such as medicine, pharmacy, dentistry, nursing, medical technology, physical therapy, environmental science, agriculture, fishery, forestry, and public health. All were developed in less than 100 years, and all these are the source of STEM human resource development in Thailand.

17.2.4 Science and Mathematics Teacher Education

For science and mathematics teacher education, the establishment of the Advanced School for Teacher Training in 1949 marked the first formal institution for teacher education in Thailand. Four years later it became the degree-granting College of Education, Prasarnmit. In 1974 it became a comprehensive university named Srinakharinwirot University, in which the Faculty of Education is responsible for teacher education. Currently there are about 70 faculties of education in Thai universities. The oldest are those of Srinakharinwirot University and Chulalongkorn University.

After World War II during the “baby boom” period, Thailand was in need of many teachers to meet the growing demand for education of the children resulting from the population explosion. Many teacher education colleges were established, especially in the provincial areas to supply the teachers needed for schools. Later on those teacher training colleges in 2004 were transformed into Rajabhat universities. There are 38 of them all over the country, roughly 1 for every 2 provinces. They are still the main source of preservice teacher education. Those faculties of education have produced teachers, including science and mathematics teachers for Thai schools.

Teachers have always been highly regarded in Thai society. However, during the rapid economic growth around the time of the 5th and the 6th National Social and Economic Plans of Thailand (1982–1991), many top high school students sought to study in higher-paying professional fields such as medicine, engineering, business, communications, technology, and economics. This resulted in the decline of teaching as a field and teaching quality. Since then Thailand has been faced with the challenge of achieving education quality for all (see Chaps. 18 and 19).

In 1972 the Institute for the Promotion of Teaching Science and Technology (IPST) was established as the national organization in charge of the development of science, technology, and mathematics curricula at the school level, quality teaching techniques, and appropriate assessment. As its name implies, its mission is to develop science and technology teaching and learning nationwide. IPST was established as a government body as part of the Ministry of Education.

17.2.5 The Status of Science and Mathematics Education in Schools

There is a strong tradition in Thai schools to prepare high school students in the science-based track required for admission into popular science and technology programs in the universities, like medicine, dentistry, engineering, pharmacy, nursing, science, economics, and business, making the science track very popular, compared to the arts track. Nevertheless this track is limited, and so only the better students have a chance to study intensive science and mathematics, whereas the rest in the arts track study minimal science and mathematics.

Science and mathematics are not as strong in the vocational track, and vocational education does not attract good students in Thailand (see Chap. 7). This is another serious problem in Thailand. STEM education needs to be promoted much more in the vocational track to prepare the majority of workforce critically needed for moving our economy to a more advanced development stage.

Thailand has promoted gifted students in science and mathematics very well and continuously, mostly in general education, in the form of scholarships granted to students to enable them to study in the gifted schools and several gifted education programs (see Chaps. 1 and 12). This practice has been going on since the introduction of science and technology from the West. There have been scholarships programs, activities like science contests, national and international science and mathematics Olympiads, and collaboration with scientific organizations around the world.

In short, high-quality science and mathematics has been promoted continually but in limited ways primarily serving gifted students. The problem of science education in Thailand is not about the quantity but about the quality of education, which tends to be concentrated in the larger cities, among special groups, and in only certain elite schools, not yet inclusive of all schools (see Chaps. 6, 13, 14, and 19).

17.2.6 STEM Education Today

As described above, Thailand has quite a solid background and infrastructure for STEM education. Following the 6th Thai-US Education Roundtable at the University of Minnesota, STEM has become a hot issue of discussions at the IPST and the STI offices, among policymakers, academics, school teachers, science and mathematics educators, scientists, and engineers. It is not difficult for them to realize that STEM education has been widely accepted and quickly adopted as a major policy by IPST, STI, the Ministry of Education, and the Ministry of Science and Technology. Many universities also try to adapt their teaching and learning accordingly. Furthermore, a number of STEM activities have been ongoing, and some of them have already

existed even before the term became known. Most of the ongoing so-called STEM programs are implemented at the basic education level (primary and secondary school levels), embedded into formal learning, or they may take the form of extra-curricular activities.

There is a good opportunity to develop STEM education in Thailand. The science and technology education community has viewed it as an innovative, integrative, and applied approach to science and mathematics education, by the inclusion of engineering and technology into science and mathematics teaching and learning, or vice versa. However, it should be noted that according to Bybee (2010), the science and technology education community tends to use the term STEM without making any distinction between existing science and technology learning programs and the newly invented STEM practices. Thailand is an example of this case due to a lack of a clear set of characteristics that can be used to design STEM curriculum, instruction, and assessment in Thailand's context.

17.3 Why STEM Education in Thailand?

Science, technology, and innovation capability is a crucial structural indicator of a country's economy. A lack of such capability reflects low labor productivity and lack of firms' innovation, resulting in low income per head. In 2014, Thailand was ranked 29th out of 60 countries/economies by the International Institute for Management Development (IMD) in terms of competitiveness, and the overall ranking has remained stagnant for several years (Table 17.1).

Citizens' abilities in science, technology, and innovation would certainly lead the country to a knowledge-based economy and a higher rank of competitiveness compared to the countries with lower capability in this area. Thailand was identified as an innovation learner by the Global Innovation Index 2013. A transition to the stage of innovation leader would require strategy and supportive systems to promote more knowledge-based growth (Cornell University, INSEAD, and WIPO 2013). In terms of preparedness to compete in the knowledge economy, Thailand scored 5.21 out of 10 in the Knowledge Economy Index (KEI), and it is still behind some of its ASEAN neighboring countries including Singapore and Malaysia (World Bank 2012a) (Table 17.2).³

Table 17.1 Overall competitiveness rankings of Thailand 2006–2014

Years	2006	2007	2008	2009	2010	2011	2012	2013	2014
Rankings	29	33	27	26	26	27	30	27	29

Source: IMD

³The World Bank Institute explains that a KEI score which is close to 10 implies the excellent development of the four knowledge economy pillars as compared to other countries, while a score close to 0 indicates relatively poor development. Source: World Bank Institute 2008.

Table 17.2 Thailand's rank on the Knowledge Economy Index, 2000–2012

Countries	Knowledge economy index (KEI)		
	2012 rank	2012 score	2000 rank
Singapore	23	8.26	20
Malaysia	48	6.1	45
Thailand	66	5.21	60
Philippines	92	3.94	77
Vietnam	104	3.4	113
Indonesia	108	3.11	105
Lao PDR	131	1.75	129
Cambodia	132	1.71	116
Myanmar	145	0.96	137

Source: World Bank (2012a)

A country's competitiveness as measured by the ICT and KEI is directly related to its development of science and technology. Scientific and technological infrastructures are among the factors which significantly diminish the overall performance of a country's economy. Science, technology, and innovation indicators are often ranked below the overall competitiveness rank except in the case of KEI where the innovation and ICT subindexes are slightly above the KEI (Table 17.3).

An increase in research and development (R&D) investment brings about an increase in labor productivity, and it has been suggested that every 1% increase in R&D investment would lead to a 6% increase in labor productivity (STI 2013) (see Chap. 16). South Korea successfully exited the middle-income country status by dramatically increasing its investment in R&D, reforming its industry to do more sophisticated manufacturing, and exporting high-tech products (Applegate 2013). The GDP per capita of Korea (current US dollars) rose from 1778 USD in 1980 to 11,948 USD in 2000 (World Bank 2015) ("the Miracle on the Han River") which corresponds to an increase in gross domestic expenditure on research and development per GDP (GERD/GDP) from about 0.6–2.3% (Schlossstein 2007) in the same period. Thailand managed to move itself from a low-income nation to a middle-income one during the mid-1990s. Even though total domestic R&D expenditures have steadily increased over time from about 370 million USD in 2001 to 1360 million USD in 2011, the proportion of R&D investment relative to GDP has fluctuated in the range of only around 0.21–0.26 over the same period, except in 2011 when the ratio significantly jumped to 0.37 (NRCT 2014; STI 2012b). The Thai government responded to this issue by launching the National Science Technology and Innovation Policy and Master Plan (The STI Master Plan 2012–2021) the goal of which is to increase GERD/GDP to 2% by 2021 (STI 2012a) (Fig. 17.2).

The shortage of science and technology human resources in Thailand is a critical problem. Without any policy or appropriate measures to increase more S&T teachers and faculty to take in more students into the science and technology pipeline, the issue will continue in the future, and Thailand will find it hard to shift to a more value-added high-tech knowledge economy. In 2011, new enrolments in science

Table 17.3 Thailand's overall competitiveness rankings compared with rankings in development of science and technology

Indicators	Rankings/score	Year					
		2008	2009	2010	2011	2012	
IMD's world competitiveness	Overall rankings	27	26	26	27	30	
	Subfactor rankings	37	40	40	40	40	
	Scientific infrastructure	43	36	48	52	50	
World economic Forum's global competitiveness index(GCI)	Overall rankings	34	36	38	39	38	
	Subindex rankings	66	63	68	48	84	
	Technological readiness	54	57	52	54	68	
World Bank's knowledge economy index(KEI)	KEI rankings	-	-	-	-	66	
	Subindex rankings	-	-	-	-	55	
	Innovation	-	-	-	-	65	
	ICT	-	-	-	-	-	

Source: 1. IMD (2008, 2009, 2014), 2. WEF (2014), 3. World Bank (2012b)

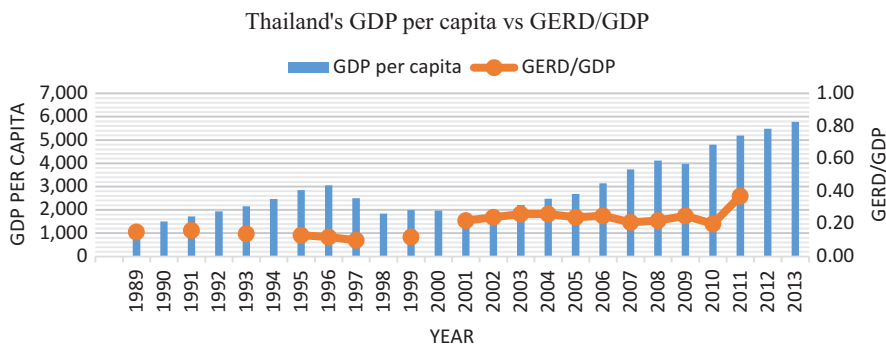


Fig. 17.2 Thailand's GDP per capita vs GERD/GDP from 1990 to 2012 (Source: NRCT 2014; STI 2012b; World Bank 2015)

Table 17.4 Proportion of new enrolment in S&T subjects compared with social science and humanities subjects in 2011

Education levels	Science and technology		Social sciences and humanities	
	No. of new enrolment	Proportion (%)	No. of new enrolment	Proportion (%)
Higher than bachelor	15,788	26	46,022	74
Bachelor	169,538	32	353,999	68
Lower than bachelor	169,277	57	129,631	43
Total	354,603	40	529,652	60

Source: STI (2012b)

and technology subjects in educational institutions accounted for only 40% of total new enrolments compared with those in social sciences and humanities subjects which accounted for 60%. The figures for higher than bachelor's degree level show the smallest S&T proportion; only 26% or approximately 16,000 of graduate students were in the S&T field (STI 2012b). The imbalance between the supply of graduates ready to enter the job market and the demand is seen at all levels of education qualification. The shortage is most critical for medium-skilled workers. This is because some vocational students, after obtaining vocational certificate, tend to proceed further to get a Bachelor's degree from a university in order to be able to work in a higher-paid job (Tables 17.4 and 17.5).

The ST&I Master Plan sets the goal to increase the proportion of S&T graduates to be 60%, compared with the 2011 status which is only 40%. Most of the highly competent students tend to pursue their study in the fields which have clear career paths such as medicine, pharmaceutical science, or engineering rather than pure science subjects. This attitude also prevails among Thai parents and largely influences the students' decisions on their further education. Hence, building awareness of the importance of science and technology human resources as well as providing clear

Table 17.5 Estimations of demand and supply of S&T manpower in 2019

Level of education	Estimated additional demand of S&T manpower	Estimated supply of S&T manpower ready to enter job market
Vocational certificate	10,547	7831
High vocational certificate	53,615	29,088
Bachelor's degree	57,941	47,698
Master's and doctorate degree	27,570	9618

Source: Office of Education Council (2013)

career paths and attractive incentive schemes should be key measures for attracting greater numbers of top students into the S&T pipeline.

A vivid example of this issue is that some students in the S&T field upon graduation may not go into this field for which they have been trained. Approximately 85–90% of the graduates of the top science secondary school, Mahidol Withayanusorn, go into medicine or law. There are inadequate financial and professional incentives for scientists or researchers in a country like Thailand. There are also not enough think tanks which then limit the opportunities to do research and innovate. Thailand's low investment as a nation in R&D clearly diminishes attractive professional opportunities for S&T graduates (see Chap. 16).

Thailand has been highly successful in preparing top-performing students to compete in several world science and mathematics forums such as the International Mathematics and Science Olympiad where Thai students have consistently achieved gold medals in the past two decades. However, these students are normally from top elite schools. On the other hand, there is still a very large gap related to improving overall performance in science and mathematics of Thai students. According to the 2015 Programme for International Student Assessment (PISA), average scores of Thai students in science and mathematics are 421 and 415, respectively, falling well below the OECD's average scores which are 493 and 490, respectively (OECD 2016). In addition, 49.7% and 34% of 15-year-old Thai students who took the test in 2012 were placed in level 2 or below out of six levels and hence considered as "low achiever" (IPST 2014b; OECD 2014).

The reasons for these low assessment scores are difficult to know without intensive and in-depth studies of policies, equitable resource distributions, schools, and classrooms. That said, an analysis of PISA scores done by IPST indicates the following reasons have contributed to low scores: (1) the major restructuring of education in 1999 changed many systems all at once and the changes affected the schools as they adjusted to the new structures; (2) when the results are broken down into different categories, for example, according to the types of schools (demonstration, Chulabhorn Rajavidhayalai, versus regular schools), age of schools (old versus new secondary schools), different locations of schools, (city versus remote schools), and

regions (North, South, Northeast, Central versus Bangkok), the scores vary a great deal, meaning the distribution of school quality is highly uneven (see Chaps. 13 and 14); (3) teaching methods require too much rote learning instead of active, analytical, and hands-on math and science teaching and learning related to daily life; (4) students are not familiar with the tests with long stems followed by a series of analytical thinking questions; and (5) the high correlations among language, science, and math scores indicate that weakness in language and mathematics teaching may contribute to low science scores especially for those in diverse ethnic and remote communities (IPST 2014c) (see Chap. 15).

Other related possible reasons are worthy of further study and consideration as well: (1) the tasks students are given to do are artificial, not authentic and not adequately cognitively demanding; (2) cultural, community, or family recognition of the value of STEM is quite limited especially in rural and ethnic communities; (3) national interest and dedication to scientific literacy for all is neglected relative to the interest in the education of scientific and mathematical high-level elites; (4) essential educational innovations are not sustained with enough resources over long enough periods of time to become institutionalized in school practices; (5) the essential coordination across government ministries and agencies is more informal than institutionalized; and (6) highly educated and dedicated human resources in science, technology, engineering, and mathematics education are in short supply in comparison to the scope and magnitude of what is needed to develop and implement quality STEM education broadly across the country (see Chaiyuth 2013; Wannapa 2012) (see Chaps. 16 and 19). Another factor may be time on task a variable stressed by Cummings (1980) and Gladwell (2008). Chatree and Luecha (2016) stress that instruction hours for science in Thailand are less than in higher-performing countries with science being taught only about 3 h per week.

Classroom teaching methods affect both students' attitude to the subject and learning outcomes. Instead of lecture-based learning, there has been an attempt to reform the way science and mathematics is being taught in school classrooms. Some notable examples include inquiry-based learning which has been largely promoted by IPST and work-integrated learning which mainly emphasizes vocational education promoted by agencies such as Office of the Educational Council (OEC) and the National Science, Technology, and Innovation Policy Office (STI). Others include project-based learning, problem-based learning, and story-based learning. Although these learning methods yield desirable outcomes for students, they have yet to be implemented nationally. Thailand also needs to study carefully the Singapore experience with its successful promotion of "smart learning" (Li et al. 2016).

Thailand needs to promote more STEM-related human resources at all levels of expertise across the entire society to enhance a knowledge-based economy and to move the country beyond the "middle income trap." STEM education is a good strategy for meeting those needs.

17.4 STEM Education and Related Policies

As of 2014, Thailand's economic and social development is being guided by the 11th National Economic and Social Development Plan (2012–2016) launched by the National Economic and Social Development Board (NESDB). The main objectives of this plan are to drive the nation toward a knowledge-based economy and capability to exit its current middle-income country status. This is regarded as the first national economic and social development plan which mentions science, technology, and innovation as crucial factors in enhancing the nation's competitiveness and includes goals for the development of science and technology. The goals are in accordance with those set by STI mentioned previously. It aims to increase R&D expenditure to reach 1% of GDP and to increase the proportion of R&D personnel from 9 per 10,000 in 2012 to 15 per 10,000 population by 2016 (NESDB 2012) (see Chap. 16).

The STEM concept was first introduced to Thailand and made widely known to the public in 2012, after the NESDB's 11th Plan and the 1st ST&I Policy and Master Plan had officially come into force. Currently and as an outgrowth of the 2012–2016 plan, Thailand has committed to STEM education as a key feature of the education and workforce development policy (Commission 2014). The policy emphasizes workforce development and promoting innovation for Thailand in ways that improves the lives of Thai citizens and enhances Thailand's international capabilities. Key features of the policy are the integration of science, technology, engineering, and mathematics, understanding theories and laws through real practice, and applying STEM knowledge in real-life situations to benefit daily living and work and teaching. The policy also emphasizes the importance of high levels of coordination and cooperation among multiple government agencies and offices as well as with business and industries from the private sector. The expectation is that the policy will be supported by large-scale data collection and analyses and that the effort will be sustained over 10–20 years.

There are a few governmental agencies that play key roles in promoting STEM education and workforce development in Thailand. The National Science, Technology, and Innovation Policy Office (STI) is a key actor at the policy level. Its main goals are to promote an increase of research personnel and enhance labor productivity and firms' innovative capability. STI has been active in experimenting with a few STEM pilot programs. These action-based research programs explore how the application and linkage of classroom STEM knowledge to STEM jobs can improve student quality. In this regard, building partnerships with enterprises is the main strategy that STI has taken as a way to attract resources and expertise in implementing the programs. The success of these pilot programs is yet to be evaluated and expanded to be more massively scalable.

Regarding STEM in formal education, the key actor is the Institute for the Promotion of Teaching Science and Technology (IPST). IPST has formulated a 5-year (2014–2018) strategy and work plan for driving the development of STEM education in Thailand (Montri 2014). The strategies focus on integrating STEM into

the mainstream science and technology curriculum. Examples of activities include curriculum reform to integrate science and mathematics with technology and engineering to become STEM, as well as teachers and principals' capacity building. To push these activities further to the national agenda, IPST needs to work closely with high-level policy bodies such as STI and NESDB. In this sense, STI and IPST have jointly built momentum to promote STEM in the circle of the science and technology education community through the informal platform called STEM Thailand Forum since 2012. The forum engages a number of stakeholders including those from the Ministry of Education, the Ministry of Science and Technology, universities, research and technology organizations, and the private sector.

A lack of a clear action plan across agencies may result in fragmentation in implementing STEM policy, and the country may not be able to achieve such goals within the given timeframe. However, advantageously, this could allow Thai educators and policymakers more time to experiment and identify STEM best practices and later consolidate the suitable meaning of STEM from what they have learned through such experiences (Finley 2012).

Beside the direct involvement from the government in promoting STEM best practices, the government should also raise awareness of the importance of STEM in order to encourage greater numbers of students to study in the STEM fields in higher education. An effective way of doing this is to seek collaboration from firms to reach out to educational institutions and parents through various ways such as early recruitment, road-shows, and STEM enrichment programs.

17.5 Existing Activities

17.5.1 Formal Education

The National Education Act (or sometimes referred to as the Education Reform Act) of 1999 serves as a basis for reforming the Thai education system (ONEC 2001, 2003). One of its main objectives is to decentralize authority by having local educational service areas, educational institutions, and local administration organizations participate more actively in the provision of education. It also enables educational institutions and agencies to "provide substance and arrange activities in line with the learners' interests and aptitudes" (ONEC 2001). The Basic Education Core Curriculum (2001) was the first national curriculum that followed this framework. The current national core curriculum being used (as of November 2014) is the Basic Education Core Curriculum 2008. Schools are allowed 30% of the total time allotment of curriculum to organize their own additional courses for their students, depending on the school's readiness, priorities and criteria, and requirements for graduation (MOE 2008).

This flexibility enables the policymakers and education providers to experiment and implement innovative STEM practices in schools. In fact, a variety of STEM

programs have been implemented prior to the spread of the STEM concept in the country and without explicitly calling them STEM. Some notable projects include inquiry-based learning, project-based learning, and problem-based learning. Greater numbers of STEM projects have been initiated by policymakers and educational providers after the concept was introduced publically during 2012–2013.

Schools that provide education for gifted students in science and mathematics have been the main targets for experimental pilot STEM projects. Such platforms were chosen owing to their readiness in terms of teachers' quality, infrastructure, and teaching and learning resources. In addition, gifted education's objective is to prepare future scientists and researchers with exceptional excellence, and this objective is an enabling factor which makes the project execution more likely to be successful. A nationwide network of universities and schools under the Development of Science and Mathematics Talented Project (DPST) operated by IPST is an example of a platform which has high potential for transforming STEM policy into reality (Pornchai 2013). IPST's mission to drive STEM could therefore exploit its own scientific infrastructure and human resources as well as its pedagogical expertise in doing so. Additionally, there has been an attempt to experiment by integrating STEM programs into the mainstream schools although with different objectives from gifted education. For example, a model of career academies which have proven effective in preparing students for both college and future career in the USA (Stern et al. 2010) has been adopted and experimented in a few selected secondary schools in rural areas of the Northern provinces as a way to prepare students for working in local STEM-based jobs.

Innovative STEM teaching and learning also can be found in the so-called alternative schools especially the private ones (see Chap. 26). Schools that possess autonomy in administration, finance, and implementation of nontraditional teaching and learning approach tend to have better students' performance than those with less autonomy. It was shown that in 2010–2011, students from the alternative schools perform better in the Ordinary National Educational Testing (O-NET) in science, mathematics, and other subjects, than those from schools under the Office of Basic Education Commission (OBEC), and are also comparable with those from demonstration schools operated under universities. The education philosophy employed in these schools varies and may include such approaches as holistic integration, project-based learning, constructivism, and story-based learning. These schools also employ different ways of assessing students' performance by minimizing written examinations and emphasizing more the improvement of students' skills and knowledge during stages of learning as well as evaluating the outcomes from students' study projects (Pokpong and Sunthorn 2012).

One notable example is the Lamplimat Pattana School (LPMP) in Buri Ram province, which successfully incorporates problem-based and project-based learning approaches into classroom learning. The school also has a strong focus in developing students' spiritual and emotional quotients (Wichian 2015). A study carried out by the University of Tasmania (Cairnduff et al. 2006) suggested its potential as a role model for the development of education policy and practice, which on its own would also benefit the development of STEM education. Beside DPST schools,

innovative STEM practices are also more likely to be found in fully or partly autonomous public schools. For example, Mahidol Wittayanusorn School (MWIT), the first specialized science high school in Thailand, provides STEM-related free electives such as creativity and innovation, with science projects and science seminars as compulsory subjects, and integrated learning on top of other core science, mathematics, and technology modules (Mahidol Wittayanusorn School 2013) (see Figs. 17.3 and 17.4). MWIT's curriculum has later become a model curriculum for the subsequently emerging special science classrooms project which includes a group of 12 nationwide Princess's Chulabhorn Rajavidhayalai Schools and 16 schools under the Science Classrooms in University-Affiliated School (SCiUS) project.⁴ Another new impressive exclusively science school is the Kamnoetvidaya Science Academy in Rayong promoted by the PTT Group. A strong linkage between local context and curriculum is one of the main features of these projects.

Unlike the private alternative schools, the less autonomous, publicly managed educational institutions are more resistant to change and are likely to execute the STEM practice in only some part of the curriculum, despite the flexibility granted by the National Core Curriculum in principle. Furthermore, it is still commonly believed that the conventional, lecture-based teaching normally practiced in cram



Fig. 17.3 Student at MWIT studying astronomy (Photo courtesy of MWIT)

⁴The SCiUS project is an initiative under the Ministry of Science and Technology (MoST), aimed at preparing students who are talented in science and mathematics to be high-quality researchers in the future. The project develops curricula and then implements them with groups of selected students. Universities, often with their proximity to the schools, assist the project by sharing their human resource (e.g., instructors), infrastructure (libraries, laboratories, etc.), and learning materials to the students. As of 2014, 11 pairs of school-university partnerships countrywide have been selected to take part in this project.

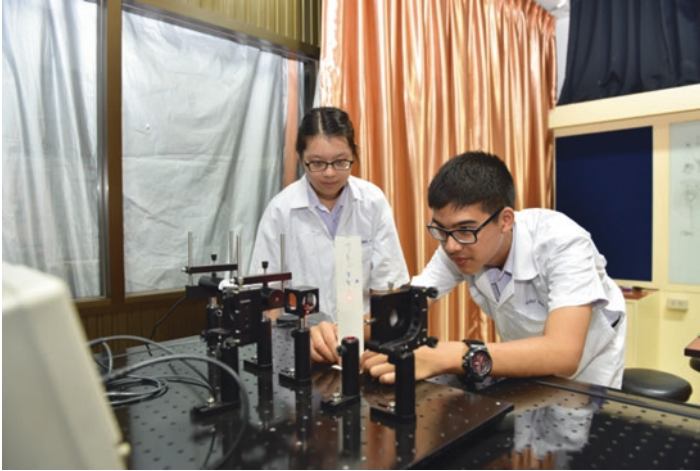


Fig. 17.4 STEM students at MWIT using modern scientific equipment in project learning (Photo courtesy of MWIT)

schools is the only way to maximize students' opportunity for higher education admission. A change to a completely new teaching practice would require a top-down effort, at least from schools' headmasters who tend to conform to OBEC's policy.

At the policy level, OBEC has been preparing to reform the national curriculum to be a more competency and outcome-based one. This new curriculum will replace the current 2008 A.D. Basic Education Core Curriculum and will also combine the existing science and mathematics subject clusters and add technology and innovation to become the STEM subject cluster. It is hoped that this reform will facilitate an adoption of innovative STEM practices in those schools which already have a desire to implement this approach and also encourage more schools to introduce more innovative learning methods in their classrooms.

17.5.2 Supporting Systems

To alleviate the shortage of high-quality scientists and researchers, the Thai government has been providing long-term scholarships for top-performing students to study science and technology subjects both in local universities and abroad since the 1980s. The two main science and technology scholarship programs are the DPST and MoST scholarship schemes. In 2014, the number of recipients of these two scholarships was 1322 persons, accounting for 43% of the total number of Thai Government scholars studying abroad in that year (OCSC 2014). Starting in 1984, the DPST scheme is perhaps one of the most successful projects for developing talented students in science, mathematics, and technology and is the longest-running

and still ongoing project at present. Selected students who attend the program are offered scholarships for studying from Grade 10 until Ph.D., and that can be extended to a postdoctoral research program which is optional. As of 2014, the number of DPST graduates who have returned to work in the country is 1016 (IPST 2014a). A similarly successful scheme was later launched in 1990 by the Ministry of Science and Technology (MoST), and so far 2376 scholars have graduated under this program (NSTDA 2014b). At present, other government scholarships are also offered to students to study abroad in science subjects and also in other subjects, such as OHEC scholarships, Office of the Civil Service Commission (OCSC) scholarships, and One District One Scholarship (ODOS).

Most of the Thai government's scholarships require the recipients to return to work in the governmental sector or universities twice the time they are supported by the funding, except for the DPST scheme in which a ceiling of payback time is 10 years. As a result, most of the talented scientists or researchers tend to work for public universities or governmental research and technology organizations rather than in the private sector. According to STI (2012b), the number of research and development personnel (full-time equivalent; FTE) in governmental organizations rose from 36,399 in 1999 to 95,800 in 2009, while those working in the private sector slightly dropped from 16,230 to 14,687 during the same time span. The government has been trying to mitigate this pattern by launching research-based scholarship programs for postgraduate study that are more industry-oriented (such as Research and Researcher for Industry (RRI) grants launched in 2013).

17.5.3 Some Ongoing STEM Education Development Projects in Thailand

As mentioned in the previous section, the word STEM may be new to Thailand, but STEM education activities are not new at all. Science, mathematics, and technology subjects have been widely taught for decades. They may also be incorporated into curricula like agriculture and health education.

In fact the education reform movement started around 1995 and culminated in the passage of the National Education Act (NEA) by the legislature in 1999 calling for the reform of education from merely knowledge transfer to student-centered activity-based teaching and learning (ONEC 2001). This comprehensive reform involves all areas. It added a local, more flexible and more integrated educational element into the curriculum structure. A decade afterwards it is found out that the quality of education varies: some schools are very good; others are still quite poor in students' performance and achievements (see Chaps. 13, 14, and 19). There are many factors accounting for such disparities. One is that there are more and more small schools, i.e., a school with fewer than 100 students is small by definition. This is due to Thailand's low fertility rate (currently 1.51) and fewer children, and this

trend continues. At the moment there are about 18,000 small schools out of about 30,000 schools under OBEC.

In 2013 the Ministry of Education ordered a reform of school curricula at all levels, from primary to high school levels (Magee 2013). The three elements, science, mathematics, and technology sections, were merged into one, called STEM education.

In 2013–2014 Thailand experienced a major political crisis with continual political demonstrations for months. The so-called National Council for Peace and Order (NCPO), the top military groups of the country, seized power from the then elected government in a military coup in May 2014. This happened after a long nationwide political movement by large numbers of Thai people, calling for a major reform of the country (Theking 2014). Following the coup, a temporary constitution was issued. The National Legislative Assembly and the National Reform Council were appointed to be in charge of the country's reforms and the drafting of the new constitution, to move through the roadmap toward the next election. At the time of major changes like this, education has been an important issue on the reform agenda, looking at all aspects and all possibilities to increase the quality and the equity of education for all Thai citizens. The drive for education reform has been strong among the public, mainly because of their awareness of the lower quality of education in general and also the low PISA test results and the unsatisfactory performance of Thai students reported by international organizations.

Such an environment provides impetus for the STEM education movement. The following are some ongoing activities that have employed the underlying STEM concept, even before the acronym was used, and future STEM education can be based on them by expanding and up-scaling them to cover even more schools.

17.5.4 STEM Education Campaign by IPST

IPST as the national organization for science and technology education development in Thailand has fully adopted STEM education as its major policy as endorsed by its Executive Board in early 2014. Curriculum development at the primary and secondary education levels is one of the four strategic plans and four road maps (IPST 2014c).

The curriculum development is ongoing and involves discussions among several departments to attempt to bring about the integration of science, mathematics, and technology teaching. To this end, IPST has developed a website that presents examples of possible challenging and creative STEM activities. For example, one set of activities has students experiment with and explain the factors contributing to motion of an electric toy car at its highest speed. Then they design and build an electric car from suitable materials and finally compute the production costs of the car. STEM also can be integrated with activities related to careers and also the humanities or social sciences. *Integrated learning* and *innovation* are the key concepts as illustrated by the toy car example.

17.5.5 Structural Development for Inclusive STEM Education by IPST

To accommodate the implementation of STEM nationwide, IPST has established 13 STEM education centers in 2014 in Bangkok and 10 provinces all over the country. These are top schools, each linking with the major university in the area and having three schools as its network at the pilot stage. This is the structure being used to introduce STEM curriculum into schools. There are core trainers to train the master teachers to be local trainers who then in turn train school teachers in their respective areas. The first training of teachers started in 2014 in Bangkok, and such training is planned all year round for teachers of primary, lower secondary, and upper secondary schools. The keys are participation of all parties to form professional networks, not just the teachers and administrators, the continuing evaluation of the curriculum, and related activities (IPST 2014d, e). IPST also is developing a STEM Ambassadors program comprised of professionals in STEM-related fields such as medical doctors, pharmacists, engineers, architects, and scientists. The aim of the program is to inspire students and assist teachers in creating STEM activities for their schools (IPST 2014d).

17.5.6 STEM Education Enrichment Modules Developed by STI and NSTDA

There is an ongoing project called “Development of STEM Curriculum to Enhance the Country’s Competitiveness Project” in which STEM modules for children are developed utilizing available resources. It is based on a MOU between the Science, Technology, and Innovation Policy Office (STI) and the National Science and Technology Development Agency (NSTDA). The purpose is to facilitate STEM education by developing modules of STEM as an enrichment program for school children, using cases, research, and the resources of research organizations and universities aimed at inspiring students to choose their future careers in science and technology. The topics are theme-based, such as environment, energy, construction, food, nutrition, materials, health, and communications. Or it can be something more specific, for example, robotics, automation, or new alternative rail systems. It is not difficult to gain acceptance of the importance of STEM, but there is a great demand for concrete STEM examples, materials, and most of all, appropriate training for the teachers to feel confident about this new approach to teaching. Enrichment programs can be introduced into the schools as the first basic step.

17.5.7 STEM Education in Kindergartens

In 2010 a pilot project called “Little Scientists’ House” at the kindergarten level was launched in 221 schools (LSH 2014) (see Chap. 1). This project involves cooperation between the Haus der Kleinen Forscher Foundation in Germany and the Princess Maha Chakri Sirindhorn Foundation that coordinates with six Thai partners, namely, the Institute for the Promotion of Teaching Science and Technology (IPST), the Office of Basic Education Commission (OBEC), the National Science and Technology Development Agency (NSTDA), the National Science Museum (NSM), the Nanmeebooks Publishing Company Limited, and the German engineering B. Grimm Company Limited. The first four are government organizations, while the last two are private companies. The model emphasizes hands-on science activities based on children’s daily lives. The equipment used in the experiments are cheap and are mostly available in schools or at home. The process involves a series of training modules starting with the core trainers, then to local trainers who in turn train school teachers. In this way the project can be expanded expeditiously with a built-in monitoring and evaluation system. After 1 year a school can apply for an evaluation and is awarded the Royal Plaque of Honor with a “Little Scientists’ House” sign on it to be posted at the school if it meets the criteria for quality and excellence. The certificate plaque expires in three academic years, after which the school has to reapply for the evaluation again to get a new plaque. The project has been expanded from 221 schools in the first year to about 14,000 schools/child centers in the fifth year. The activities motivate the children a great deal, and the plan is eventually to strengthen primary education STEM beyond the kindergarten level. This project should cover all kindergartens by 2017.

17.5.8 STEM Through Special Science Projects

Scientific activities have been promoted over two decades in Thailand through students’ science projects. Initially it was an extracurricular activity motivated by the local contests up to the national contests organized by the Science Society of Thailand. Now they are included in the regular curriculum, especially at the secondary level. In science projects, students can design and carry out their own projects, leaving room for them to create, innovate, and integrate their knowledge, not only in science, technology, and mathematics but also in arts and social sciences. Science projects are a good example of implementing STEM education.

17.5.8.1 Science Camps

Science camps as extracurricular activities have become popular in Thailand. Many scientific organizations, for example, the National Science and Technology Development Agency and the National Science Museum, organize science camps

every year for kids. NSTDA even has the so-called Sirindhorn Science Home, a special building named after Princess Maha Chakri Sirindhorn, for science camps all year round. In these camps students do many hands-on activities, sometimes including field study, motivating creativity and innovation along with fun activities. NSTDA and IPST also cooperate with eight leading universities in Thailand in the so-called Children University Project, in which each university organizes special science camps or activities in the universities for school children. The project involves cooperation with the Children's University program at Universität Bielefeld in Germany (NSTDA 2014b).

17.6 Challenges for Thailand

STEM education serves Thailand at the time when the country is launching another major round of teaching and learning reform, from the traditional knowledge transfer and rote learning to the next level involving creative and innovative capacity building and the transformation of knowledge. Even though it has been successful in many micro projects, but at the large nationwide scale, Thailand still faces many complex challenges.

17.7 Goals for STEM Education

Examining the above descriptions of the history and current practices of what is currently science, mathematics, and technology education, one can see an underlying but not necessarily obvious problem that will face STEM education in the future. Education in science and mathematics education has been driven by a concern about the shortage of high-level professional human resources such as scientists, mathematicians, and engineers. The primary goal seems to have been to identify and educate those with the academic abilities and interests in these fields and to have them become high-level productive professionals.

We view this seemingly singular goal as necessary but insufficient. We also see this goal as secondary to the goal of having large portions of the population become STEM literate. Any country that hopes to participate fully in our highly technical, global economy in civil and informed ways will need more than just elite STEM professionals. A STEM-literate citizenry is essential if our personal and local decisions and actions are to be properly informed. In addition, a STEM-literate citizenry is essential in setting a national expectation that politicians will be elected only if the electorate can depend on them to be STEM literate. Electing and supporting politicians who will employ STEM ideas and skills in making their decisions are critical. An example was the late visionary Damrong Lathapipat, who while a cabinet minister in the 1980s fought hard (without much success) to enhance Thailand's science and technology capabilities. Being able to elect politicians who will support

and fund STEM-based research, programs, and projects is also critical. In addition, having a STEM-literate population is essential to develop people who can participate in STEM-related careers other than those that are considered to be at the highest levels of a field. Businesses, industries, and government agencies need large numbers of STEM-literate people to employ. Finally, aiming for a STEM-literate population is likely to help meet the demand for STEM professionals. The current system is not designed to engage, encourage, and sustain children's interest in STEM fields. Because of the emphasis on developing high-level professionals, most Thai students probably see STEM education as inaccessible and irrelevant to them. If we sustain the interest and engagement of a much large number of those in the STEM field, there would be a much broader and deeper pool of talented individuals who would likely continue their critically needed professional development in STEM fields.

17.8 STEM Education Versus Traditional Science and Mathematics Education

Traditional science and mathematics education, in which the subjects, theories, and experiments are usually separate, is challenged by the kind of STEM education that would reflect the characteristics described at the beginning of this chapter. A STEM program would require integration of subjects as opposed to focusing on the separate, abstract, and, from the students' perspective, "unreal" subject matter. A STEM education program also would require that students become competent with respect to performing authentic tasks (Barell 2016). Bender (2017) offers 20 strategies for STEM instruction which need to be reviewed critically to see which might be appropriate to the Thai context. In the current digital age, students also need to know how to use educational technologies creatively and effectively (November 2010, 2012; Ramírez Montaya 2017).

This is a big change of approach compared to traditional curriculum, instruction, assessments, the organization of schools, government agencies, and teacher education. The issues of the balance between theory and practice, and between basic science and applied science, for example, are often debated. As STEM education is expanding to a larger scale, how these differences can be resolved is a big challenge to Thai educators.

17.9 Student Assessment and Teacher and School Evaluation

Changing the curriculum from a traditional knowledge transfer to a STEM approach requires major changes in the assessment and evaluation practices for students, teachers, and schools (see Chap. 24). The assessment and evaluation of students

have been based mostly on written examinations, particularly objective type tests. Furthermore, the formal assessments and evaluations are used almost exclusively in a summative manner. STEM education should be evaluated differently, mainly focusing on students' applications of knowledge and skills to real-world contexts, the development of inquiry skills, discovery of creative and innovative ideas, teamwork, concrete practical accomplishments, and also social and economic awareness and responsibility. These different kinds of assessments need to be used *formatively* as well as summatively (Cronbach 1982). Formative evaluations will provide finer-grained information about the opportunities and problems inherent in the new STEM approaches. The information gained from practical formative assessments will allow for midcourse corrections in program components that cannot result from overreliance on summative assessments alone.

National and local assessment developers, politicians, and teachers must be educated about new ways to assess and evaluate STEM validly and effectively. The first fundamental rule of evaluation needs to be to ask students to demonstrate what they are asked to learn to do. If they are asked to learn to apply STEM subjects in authentic ways, they must be assessed on their abilities to do perform these kinds of practical tasks. Similarly, if teachers are expected to teach students to learn to do challenging authentic tasks, their educations and their own evaluations must be related to that kind of teaching. The teachers and the schools also need a different kind of evaluation. This is quite a big, expensive, and complex task if implemented nationwide. However, it is absolutely critical because policymakers, administrators, parents, teachers, and students will attend to the quality and results of these kinds of assessments. The promise of STEM education will never be realized in practice and will disappear as quickly as any other fad unless it is supported by a valid, reliable, and rigorous assessment system.

17.10 Relevance of STEM Education to the Workforce

At the university level, STEM education is directed toward increasing the capability of the workforce and being relevant to industry, business, national development, social responsibility, and the economy. It is also the only place where engineering is taught. Thailand, like other developing countries, is in a great need for more science and technology human resources *at all levels*, including those working in agriculture, manufacturing, politics, research, development, and innovation. STEM education at the higher education level should be related to students' education in research and innovation in their independent work. Universities need to change. Admissions must be changed from being heavily based on written test results that are often from multiple-choice examinations to more authentic assessment of the candidates based more on students' performance and genuine competencies (Abeles 2015; Vichit 2014). Teaching methods must change as well in that students need to be provided authentic STEM curriculum instructions and assessments. These changes will

require stronger and closer linkages among government agencies, universities, industries and businesses, and the communities they serve.

We should note, however, that there are skeptics who question a potential over-emphasis on STEM education to the detriment of rigorous general liberal education that can lead to life long-learning, critical thinking, innovation, and entrepreneurship (Zackaria 2015; see also Goldin and Katz 2008). Zackaria argues that good liberal education can contribute importantly to creativity, innovation, and critical thinking. He mentions as an example Mark Zuckerberg, founder of Facebook, who was a classic liberal arts major at Harvard. Recognizing this perspective it is important to stress the great importance of attaining both quality STEM education *and* quality liberal education.

17.11 Vocational and Academic Curriculum Integration

The vocational and technical education programs at all levels can and should play a larger role in STEM education (see Chap. 7). These programs can be especially effective in that they already include studies that address technology and are often supportive of STEM-related careers, especially those mid-level and semiprofessional careers where the need for skilled individuals is great and growing. However, these programs will have to be dramatically updated and changed. A reformulated vocational education program has to include various kinds of engineering trades – not professional engineers but technically capable people in areas like media, communications, computer repair, network implementation, and medical support.

Furthermore, the reformulated programs should increase the attention given to STEM-related subjects. Too little science and mathematics are included in these vocational programs. Care must be taken to assure that the science and mathematics teaching are done in a way that is complementary to, integrated with, and supportive of vocational and technical education goals.

On the other hand, academic institutions also include too little vocational and technical education. Much of academic education is sterile and overly abstract in that there are insufficient educational and practical experiences related to professional and technical applications (see Argyris 1980; Sokal and Bricmont 1998). Even the most academically inclined and talented students need practical real-world experiences. Well-designed internships can be extremely valuable and need to be open to more than just high-SES students who are well-connected (Fry 2015; Walker 2016).

One way to enhance STEM-related teaching and learning that goes on in both vocational and technical programs and academic programs is to have students from one program take courses and participate in each other's institutions. Doing so, would increase the status of vocational and technical education, as well as improving students' knowledge, skills, and competencies. Moreover, such exchanges would introduce students from academic programs to real-world experiences, enhance their abilities to apply their academic knowledge, and expose them to employment opportunities that they would not otherwise encounter. These exchanges

can be done both within levels such as within secondary level schools or postsecondary schools and even across system levels. For example, secondary level students from academic programs can participate in postsecondary level vocational and technical schools and vice versa.

A second option would be to encourage and support students who would be willing to go to vocational and technical schools after their initial college degrees and do the reverse for those from technical schools who can continue their education in academic settings. This becomes feasible to the extent that there is good articulation between academic and technical programs.

Both kinds of exchanges are used in other countries and have been found to be beneficial and affordable, but regardless of what mechanisms are used, the complete separation of academic and vocational and technical education cannot continue if a STEM education agenda is going to contribute to the development of Thailand.

17.12 Parental Attitudes, Social Values, and University Admissions

In Thailand parents play an important role in influencing their children's choice of an educational path to take. In Thai society, science and mathematics have been regarded as the key subjects to get students into popular university programs. For this purpose, private tutoring in science and mathematics is extensive in Thailand, making STEM education difficult to implement in schools (see Chap. 25). Parents must participate in and be informed about the characteristics of STEM education. Fortunately, STEM education and the Thai educational law (1999) require community engagement and the negotiation of a portion of the school curriculum with local communities. In addition to these negotiations, there are two specific ways of engaging parents and other community members which are to use community and context-based education strategies (Nutthanichchaya et al. 2015). The participation of the community provides a perfect opportunity to have parents understand and experience the value of STEM education.

17.13 Policy on STEM Education Development, Teachers, and Administrators

Lastly, the greatest challenge of all is the continuity and the quality of long-term educational policy. Such sustainability needed to develop STEM education requires a coordinated effort among the many national and local agencies such as those that are responsible for resource allocations and budgets, curriculum standards, curriculum materials, equipment and materials, instructional media, teacher recruitment and retention, teacher education, continuing professional development, teaching and

educational administration, and assessment. Policies that are sustained across political and administrative changes over long periods of time will be essential. Emphasizing STEM education as Thailand enters another round of education reform to develop an improved system for better quality twenty-first-century education provides a possible starting point for developing sustained and integrated policies and programs.

17.14 A Strategy for STEM Development

We made clear near the beginning of this chapter that a singular fixed definition of STEM and approach to developing and implementing STEM may not be desirable for Thailand. We emphasize this because STEM education has many characteristics and components that can be integrated in many ways, and doing so is a particularly complex undertaking. STEM education certainly has many variants that can be productive. Having variations in STEM programs is guaranteed by one characteristic alone. If STEM education takes the many local and regional contexts and communities into account, there will be many kinds of STEM programs. This variability is important because one version of STEM will not serve the culturally diverse and varied life styles and aspirations of all Thai people (see Chap. 15). The people of Samut Songkhram, Mae Hong Song, Pattani, and Nan can utilize differentiated STEM curricula to benefit themselves and their communities and when the benefits are summed across Thailand the benefits accrue to Thailand as a nation.

We believe that any STEM initiative should commence with the creation of numerous alternative forms of the above characteristics in a variety of kinds of schools and locations. The different alternatives will benefit the diverse regions and communities and thus meet national goals. When we say alternative manifestations, we are suggesting the creation of instructional modules that are sustained in that they require 3–4 weeks of instruction. We are not suggesting that we start with developing complete year-long STEM programs. Doing so is too ambitious given the challenge that the development and implementation of full-blown STEM curriculum, instruction, and assessment requires national systemic changes in policies, procedures, budgets, support, human resources, and educating the public about the worth of what would be a profound change in the educational system. Instead we are suggesting a more measured approach from which we can learn and then extend the presence of STEM in the schools. Once there are well-designed and tested modules, then it may be possible to combine selected modules into year-long programs if that is found to be warranted and necessary. We estimate that 10–20 years of sustained efforts at developing and implementing STEM education will be required.

When we think of developing STEM education modules over the next 10–20 years, we are realistically acknowledging the complexity, scale, and scope of the task at hand. However, we also must note that the development of modules and programs has to be accompanied by extensive and in-depth evaluation and research. Without evaluation and research, we will not understand what formulations of STEM are successful and those that are not (see Chap. 19). More importantly, we

will be unable to identify what aspects of the various modules and programs should be promoted for use by others, redesigned, or not used at all.

We conclude by borrowing a model for the development of STEM programs from engineering education (Chessler et al. 2013):

1. Design alternative modules based on the above characteristics.
2. Implement the modules on a modest scale.
3. Conduct evaluations and research on those initial implementations.
4. Use the results of those evaluations to redesign promising efforts.
5. Implement and evaluate the modules again.
6. Compile the modules into programs that we would then be implemented and tests in the process described in steps 1–5.

By doing so we can over time formulate a more refined understanding of what STEM education can be and create documented excellent examples of STEM's potential. Others could then use the research and evaluation findings to adapt or modify the examples with confidence.

17.15 Conclusion and Recommendations

The development of STEM education is critical. Extensive and effective STEM education is central to Thailand's economic, social, and environmental future.

A sustained supply of researchers and engineers in STEM education will be needed, especially given that the ASEAN Economic Community (AEC) became operational at the end of 2015 (see Chap. 16). The history of interest in STEM subjects in Thailand positions the country to become a leader in the ASEAN community. However, the development of scientifically and technically competent people who can take on key government, NGO, and business and industry positions is crucial for Thailand to take on such a leadership role in the region. A country cannot be engaged in international discussions and commerce without STEM expertise at all levels. Many people who can interact with high-level researchers and engineers will be needed, and there will be many employment opportunities in such fields. In addition to having many STEM-educated employees at many levels, having politicians, administrators, and a STEM-educated overall population will be needed to assure that personal, political, and economic decisions are properly informed and supported.

Our primary policy suggestions for consideration are the following:

1. Policymakers and educators must recognize that STEM education requires people to learn to use the knowledge and methods from multiple fields in science, technology, engineering, and mathematics in an *integrated interdisciplinary way*. The required integration of subjects will necessitate dramatically improved coordination of the national standards, assessment programs, teacher education programs, and effective communications and policymaking across numerous government agencies.

2. Equitable access to and the distribution of educational resources including highly qualified teachers, teaching resources, and quality school buildings must be established. The variability across geographical regions and ethnic groups is far too great (Chatree and Luecha 2016) (see Chap. 14).
3. Both initial licensure and professional development teacher education programs will need to be changed dramatically so that they are aligned with STEM curriculum, instruction, and assessment goals and practices. The programs will need to include more integration of STEM subjects and substantial instruction and experiences in teaching using authentic methods such as context and community-based teaching that require the students to apply their knowledge and skills in rigorous ways. New STEM-based teacher education programs will only be as effective as the support for STEM education becomes the norm in government agencies and the society writ large. For example, if assessments programs continue to require discipline by discipline tests and these tests have high status as determinants of the future of Thai children, teachers will continue to teach according to what they perceive as the nature of the assessments. We argue that new teacher education programs will be needed based on the redesign concepts introduced in Chap. 18 calling for a new breed of teachers. Clearly teachers have the most immediate impacts on what students learn. New teacher education programs will need to be grounded in a sophisticated study of teacher education programs regarding their content and quality.
4. The benefits and resources that teachers are provided need to be commensurate with the high status they are afforded. Attracting, educating, and retaining teachers in STEM fields are challenged by low salaries when other more profitable employment options are available.
5. STEM education will have to include the social sciences because we live in a world of powerful interactions between natural and social systems. STEM will need to include studies of culture, agriculture, economics, communications, transportation, and politics (Kline 1995; Klein 2010). The inclusion of the social sciences and the need for STEM-educated people at all levels of society suggest that the education systems must engage local, regional, national, and global communities. While priority must be given to the development of quality STEM education, there must be an appropriate balance retained between STEM and liberal education (see Cohen 2016; Snow and Collini 1993; Zackaria 2015). There is now a new movement in the USA called STEAM to integrate arts into STEM to foster innovation (Feldman 2015).
6. Innovative STEM education policies and programs will have to be sustained for many years and perhaps many generations, if they are to be successful. The current efforts of the Institute for the Promotion of Science Teaching (IPST) to establish regional STEM education centers and the STEM Ambassadors Program are incredibly exciting and promising as are the efforts of agencies such as the National Institute of Science and Technology Policy. Educational and the necessary accompanying cultural changes are, however, slow. Patience, persistence, adjustments to national needs and circumstances, and continuous improvement will be the hallmarks of a successful STEM effort.

Thailand can be self-sufficient and a leader in STEM education in the ASEAN community if efforts such as these are sustained for many years into the future. The chances of realizing the late HM King Bhumibol's visionary self-sufficiency economy will be greatly enhanced with the development and implementation of high-quality rigorous STEM education.

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Chapter 18

Redesigning Teacher Education



Pruet Siribanpitak

Abstract Teacher education in Thailand is one of the most critical issues in education reform. It has always been the responsibility of government to provide both preservice and in-service teacher education programs. Preservice teacher education programs can be either a 5-year bachelor's degree in education, or a 1-year graduate diploma in teaching, or a master's degree in teaching. However, Thailand is now facing a paradox with shortages of teachers at the school level in certain geographic areas and fields, while there is at the same time an oversupply of trained teachers. There are also a lack of fit between teacher preparation and class assignments and the lack of teachers in core areas causing the practice of out-of-field teaching in which teachers trained in one field of study are assigned by school to teacher class in another area of study. There is a need to redesign teacher education to prepare Thai teachers better for the complex challenges of the twenty-first century. A better fit between teacher supply and demand is the most urgent agenda. The retraining and reallocation of out-of-field teachers are the second urgent agenda. The redesign of teacher education programs (both preservice and in-service) is the third urgent agenda. To retain their leading role, Thai teacher education institutes must produce a "new breed of teacher." These teachers must know their subject matter well and have a passion for teaching it. They must also understand deeply the nature of student-centered, constructivist learning and learning how to be innovator.

18.1 Introduction

Teacher education has a significant role to play in the improvement of educational systems around the world. Pauline Musset provides a useful summary of the importance of teacher education for contemporary education reform:

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The debate on teacher education has gained special importance as teacher quality

is more and more being identified as decisive to student outcomes. It is now acknowledged that teachers are the school variable that influences the most student outcomes (OECD 2005). Education reforms that do not take into account teacher education are condemned to inefficiency (OECD 1988) (Musset 2010, p. 3).

18.2 Evolution of Thai Teacher Education

Thai teacher education has always been the responsibility of government teacher education institutes for preservice teacher education. Government departments have also been responsible for in-service teacher education as well. Formal teacher preparation began in the year 1892 with the establishment of the first teacher training school in Bangkok to train elementary school teachers. The first university which offered a teacher education program in the year 1917 was Chulalongkorn University. The first bachelor's degree program was also offered at Chulalongkorn University in 1934. The first Department of Teacher Education was set up at the Faculty of Arts, Chulalongkorn University in 1943. Six years later in 1949, the Higher Teacher Training School at Prasarnmit was established, the first of its kind in Thailand, and in 1953 that institution became the College of Education. Later that College in 1968 expanded establishing branch campuses in Maha Sarakham in the northeast, Phitsanulok in the north, and Songkhla in the south (Aree 1973).

In 1956, the Teacher Training Department of the MOE in collaboration with UNESCO launched a project, Thai-UNESCO Rural Teacher Education Project (TURTEP), to improve Thai rural education. After 1961 the project was jointly assisted by both UNESCO and UNICEF. The basic goal of the project was to improve the training of rural primary school teachers (Bhunthin 1973).

Teacher training schools were upgraded to teachers' colleges and provided bachelor's degrees in education in the year 1975 (OEC 2015). Teachers' Colleges were later upgraded to become Rajabhat Institutes in 1995 (*Royal Thai Government Gazette* 1995) as comprehensive higher education institutes for local development. Then they were upgraded to be Rajabhat Universities in the year 2004 and now offer many doctoral and other graduate programs.

As of 2017, there are 176 teacher education institutes in 113 universities/colleges/institutes. However, there are only 42 teacher education institutes in private universities/colleges (OEC 2015).

18.3 The Current System of Teacher Education

As part of the research in support of the education reform reflected in the 1999 NEA, Thailand's teaching personnel system was analyzed, and recommendations for change were made (Fry 1999). Subsequently in the year 2003, there was a major reform of preservice teacher education. As required by the new law, Teacher and

Educational Personnel Council Act 2003, all teachers must have a professional license to teach. To be qualified to obtain a license, one must earn a 5-year bachelor's degree in education or a 1-year graduate diploma in teaching or have a master's degree in teaching. These teacher education reforms are described in detail by Somwung (2001) and Thirasak (2002), who introduced the concept, "self-actualization for Thai teachers."

The Teachers Council of Thailand has established professional standards for the teaching profession and criteria for the accreditation of preservice teacher education program since 2003, and these were revised in 2013 (*Royal Thai Government Gazette* 2013a, b and 2014a, b).

The current professional standards for the teaching profession are comprised of two components:

1. Knowledge, consisting of 11 sub-components:
 - 1.1 The teaching profession
 - 1.2 Educational philosophy
 - 1.3 Language and culture
 - 1.4 Psychology for teachers
 - 1.5 Curriculum
 - 1.6 Learning and classroom management
 - 1.7 Research for learning enhancement
 - 1.8 Innovation and information technology
 - 1.9 Learning measurement and evaluation
 - 1.10 Educational quality assurance
 - 1.11 Virtue, ethics, and professional code of conduct
2. Professional experience, comprised of two sub-components:
 - 2.1. Professional practice as part of course work
 - 2.2. One year of full time student teaching at a school

In 2011, the Office of the Higher Education Commission (OHEC) established the Thailand Qualifications Framework (TQF) for the Bachelor of Education (5 year) Program. The framework set the quality standards for the program focusing on six dimensions of desirable attributes and learning outcomes in both pedagogy and content as follows:

1. Virtue, ethics, and professional conduct
2. Knowledge
3. Intellectual skills
4. Interpersonal relations and responsibility
5. Quantitative analysis, communication, and information technology
6. Learning management skills

All such programs must meet the requirements established by the Teacher Civil Service and Educational Personnel Commission (TCEPC) and the Office of the Higher Education Commission, Ministry of Education.

18.4 Teacher Supply and Demand

18.4.1 Shortages of Teachers

Since the early years of educational expansion until prior to 1990, Thailand was facing serious shortages of trained teachers. There were many one-teacher schools in remote areas. All teachers colleges were, thus, asked to offer twilight programs to provide teaching certificates and teaching degrees to increase the supply of teachers (OEC 2015). Chanita (2005) did extensive research in 2005 on teacher shortages in basic education.

18.4.2 Oversupply of Teachers

After a few decades, then Thailand experienced an oversupply of trained teachers primarily resulting from Thailand's dramatic reduction in its fertility rate and, thus, less need for teachers to provide education to a much more slowly growing population. However, the problem is twofold: the lack of fit between teacher supply and demand and the lack of teachers in core subject areas such as mathematics, science, and english. Overall the average number of new graduates in 2013–2017 will be about two times greater than the number of teachers needed yearly (see Table 18.1). The teacher supply by content knowledge is also more than teacher demand (see Tables 18.2 and 18.3).

Table 18.1 Estimated supply and demand of teachers, 2013–2019^a

Year	Supply	Demand
2013	23,579	
2014	35,428	9910
2015	57,135	12,111
2016	60,798	17,621
2017	52,570	21,961
2018		22,999
2019		24,643
Average/year	44,702	18,208

^aOffice of the Education Council (2015)

Table 18.2 Estimated teacher supply, 2013–2017 by content knowledge^a

Content knowledge	Estimated number of new graduates
1. Early childhood	27,019
2. Physical education	26,878
3. English	24,505
4. Social studies	23,375
5. Mathematics	22,477
6. Thai	20,550
7. Science	18,688
8. Computer education	12,352
9. Elementary education	7331
10. Art education	4701
11. Music education	4175
12. Education technology	3803
13. Biology	3802
14. Drama education	3278
15. Physics	2980
16. Chemistry	2723
17. Chinese	2369
18. Health education	2189
19. Industrial education	2159
20. Others	20,209

^a Office of the Education Council (2015)

18.5 Out-of-Field Teaching

The critical problem facing teacher education in Thailand is twofold: the lack of fit between teacher preparation and class assignments and the lack of teachers in core areas. This is the result of the practice of out-of-field teaching in which teachers educated and trained in one field of study are assigned by school administrators to teach classes in another area of study.

A study by Pruet and Siriporn (2007) shows the extent of out-of-field teaching at the secondary level among different types of schools, school sectors, community types, and grade levels. Table 18.4 shows the percentage of teachers without an undergraduate or graduate major or minor in the field they are teaching. Table 18.4 shows the percentage of teachers without an undergraduate or graduate major in their field.

Each table indicates that there are many teachers assigned to teach classes in fields that do not match their educational backgrounds. The data in Table 18.4 show that 24% of teacher who teach mathematics and social studies classes have neither a major nor a minor in mathematics or social studies or related disciplines. These problems extend to other classes even Thai language classes where about 21% of all those teaching Thai language classes have neither a major nor a minor in Thai.

Table 18.3 Estimated teacher demand, 2014–2019 by content knowledge^a

Content knowledge	Estimated number of teachers needed
1. Mathematics	14,399
2. English	13,852
3. Thai	11,454
4. Social studies	7487
5. Science	7462
6. Early childhood	6918
7. Computer	6160
8. Art education	4162
9. Physical education	3889
10. Music education	3695
11. Elementary education	3393
12. Psychology/counseling	2931
13. Drama education	2831
14. Physics	2676
15. Health education	2586
16. Craft	2411
17. Biology	2312
18. Chemistry	2271
19. Agriculture	1446
20. Library	1443
21. Home economics	1253
22. Special education	1137
23. Industrial education	1104

^a Office of the Education Council (2015)

The data reveal less difference between the locations of schools. For example, 24% of secondary teachers who teach social studies classes in urban schools have neither a major nor a minor in social studies compared to 25% of those who teach social studies classes in suburban and rural schools. Creating some controversy, there is more difference among grade levels. Teachers who teach at the lower-secondary level have been assigned to teach classes in fields that do not match their educational background much more than those who teach at the upper-secondary level. For example, in public schools, 31% of teachers who teach mathematics classes at the lower-secondary level have neither a major nor a minor in mathematics or related disciplines, as compared to 10% of teachers who teach at the upper-secondary level. Finally, in private schools, 28% of teachers who teach mathematics classes at the lower-secondary level have neither a major nor a minor in mathematics or related disciplines as opposed to 13% of teachers who teach at the upper-secondary level.

Concerning teachers who teach without an undergraduate or graduate major in the field, there are increasing percentages of teachers who teach without an undergraduate or graduate major in the field. This means that many teachers in Thailand are assigned to teach out of their major. For example, 26% of teachers teach social

Table 18.4 Percentage of secondary grade level teachers in Thailand in the core academic fields without an undergraduate or graduate major in the field, by types of school, (academic year) 2004

Type of school	Native language (Thai)	Math	Science	Social studio/ religion culture	Foreign language (English)
Total	24	26	15	26	20
Public schools	24	26	15	26	20
Community type					
Urban	24	26	14	26	19
Suburban and rural	24	26	15	27	20
Other	29	31	16	28	18
Grade level					
Lower secondary	30	34	20	33	26
Upper secondary	9	8	7	13	7
Private schools	20	26	10	18	17
Grade level					
Lower secondary	21	31	11	21	19
Upper secondary	15	15	8	11	11

Definitions:

- (a) The data of public schools were collected from 64% of the Educational Service Area Offices (175 offices)
- (b) “Other” community type refers to the whole province in those small provinces with only one school district
- (c) The data of private schools were collected from 37% of the Educational Service Area Offices (98 offices)

studies classes and mathematics classes without an undergraduate or graduate major in these fields.

One source of variation in out-of-field teaching is school type. Public schools have higher levels of out-of-field teaching than do private schools in the subjects of social studies, Thai language, sciences, and English language, but there are no differences in mathematics.

As mentioned, out-of-field teaching also varies by grade level, with both public and private schools having great differences in out-of-field teaching between lower-secondary and upper-secondary levels. The percentages of teachers who teach without an undergraduate or graduate major in the field at lower-secondary level are higher than those at the upper-secondary level. For example, for public schools, the data show that 34% of teachers who teach mathematics at the lower-secondary level do so without an undergraduate or graduate major in mathematics, or related disciplines, compared with 8% at the upper-secondary level. Finally, in private schools, 31% of teachers who teach mathematics classes at lower-secondary level as opposed to 15% of those who teach at upper-secondary level are without an undergraduate or graduate major in mathematics or related disciplines.

18.6 Teacher Deployment

With the decentralization associated with the NEA in 1999, the teacher deployment function was delegated to the newly created Education Service Areas (ESAs) which had personnel committees which made decisions about teacher deployment and transfers. With the new decentralization model announced in March 2016, this changed. So currently the provincial education committees have assumed the responsibility for personnel decisions such as the deployment and transfer of teachers. With this change, the government is hoping for a system with less local patronage and more integrity.

Usually in schools in the Northeast, for example, the teachers are from that part of Thailand. Also, unlike Japan, where teachers rotate every so many years, Thai teachers tend to stay in their schools for long periods. In fact (except for medical or security reasons), a teacher must serve for at least 4 years in a school before they can request a transfer.

Obviously for a variety of reasons, there are advantages to teach in more centralized areas closer to modern amenities. Also such sites are much more appealing to individuals who are single. Several teacher informants in the northeast shared candidly that to seek a transfer to one of these more favorable locations in some localities, there may be payment of a substantial monetary fee involved. However, it is impossible to find any hard data on such a sensitive topic. The government hopes with the new decentralization system to minimize such local “educational corruption” and related patronage to the extent that it may exist (see Chap. 19). With 77 provinces rather than 225 ESAs to monitor, the span of control is reduced considerably. This will, of course, depend on the integrity and transparency of governors, provincial education officers, and the provincial education committees.

18.7 A Tetrahedron Model for Teaching Excellence

Drawing upon both Buddhist and Confucian thoughts, Gerald Fry and Takehito Kamata at the University of Minnesota have developed a tetrahedron model of teaching excellence to integrate the affective and cognitive aspects of teaching. See Fig. 18.1. This tetrahedron model is intentionally neither hierarchical nor linear. All four key elements are important, and it is an empirical question as to which may be more powerful in explaining teacher excellence in Thailand. The model assumes that each of the four elements is a necessary but not sufficient condition for quality teaching. This model inspired by Asian and Thai philosophical thought is directly relevant to teacher education in Thailand and elsewhere.

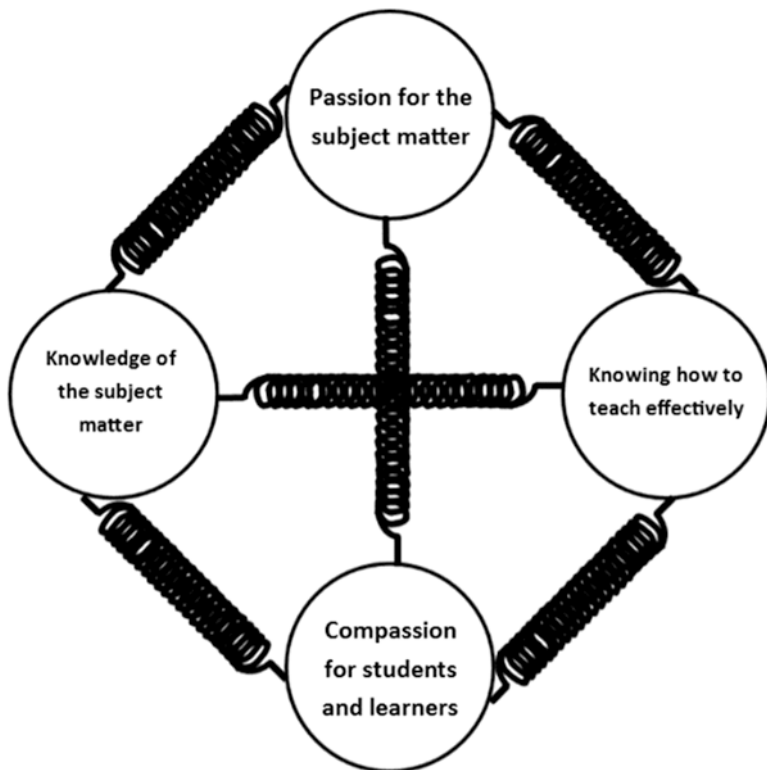


Fig. 18.1 Tetrahedron model I for teaching excellence: Integrating affective and cognitive domains (Fry and Kamata 2018)

18.8 In-Service Teacher Education in Thailand

This is a seriously neglected area as most research has focused on preservice teacher education. Many developing countries for a variety of reasons are simply not implementing in-service teacher education (Karras and Wolhuter 2010). In the current age of rapid globalization and regionalization (the inception of the AEC at the end of 2015) and the need for students to develop critical skills for the twenty-first century, in-service teacher education is even more important than ever. How to provide effective in-service teacher education presents all kinds of complex challenges.

The most significant work on in-service teacher education in Thailand has been done by Sumlee Thongthew (2013) of Chulalongkorn University. She first distinguishes between in-service teacher training and retraining programs and notes that Thailand has focused on the former. She traces the evolution of in-service teacher training back to the National Teachers Act of 1945, which included a policy that

teachers should have professional development opportunities. Then during the major education reform of 1998–1999, a policy was established that teachers enroll in an in-service training program at least once every 4–5 years.

Sumlee then goes on to identify the diverse providers of in-service education in Thailand, namely:

- MOE, primarily its Bureau of Teachers Education and Basic Personnel Development and ESA offices in the localities
- IPST, for teachers in the STEM area
- Faculties of education in various universities
- Rajabhat Universities (formerly teachers' colleges)
- BMA, for schools in the Bangkok metropolitan area
- Other government technology-related agencies such as NSTDA, NEPPO, and NECTEC (but their staff lack teaching degrees)

In 2013, the MOE shifted its approach to in-service teacher training more in accord with the recommendations of this chapter as part of rethinking Thai education. They introduced a new policy, Coaching and Mentoring Approach for In-Service Teacher Training Project (Sumlee 2013). QSCCS learning skills were emphasized, namely, to question, search for new information and knowledge, construct new knowledge, communicate effectively, and be committed to serve society. The key question is to what extent this new approach to in-service training has actually been implemented throughout the Kingdom.

Some teachers complain that they have inadequate opportunities for such training. The best empirical evidence on the status of in-service teacher education is provided by a telephone survey of 427 outstanding teachers nationwide representing every province focusing on out-of-class activities affecting teaching and learning (see Chap. 24). This survey was conducted by the Office for Promoting Learning Society and Youth Quality (*So So Kho*) (สสท). On average teachers spend 10 days being away from their classrooms for in-service training. These teachers were then asked to assess the impact of these activities on their teaching. As might be expected, 20% of those surveyed saw these activities as negative and only 15% as positive, raising serious questions about the effectiveness of isolated training in fancy hotels or at ESA offices removed from actual teaching sites.

There are numerous problems associated with such training which can be summarized as follows:

- If this training occurs during the academic term, which it often does, then these teachers are removed from their classrooms. Substitutes, if available, may not have the requisite training in English or math, for example. This represents a serious opportunity cost of training and a real hardship for schools which already lack qualified teachers.
- There is often no follow-up to the training making it unsustainable.
- The training may be overly theoretical and abstract. Trainers may lack actual direct classroom experience themselves, and there is a serious issue of teacher trainers lacking adequate skills (Pillay 2002; Sumlee 2013).

- *Context certainly matters*, and it is difficult to adapt such “universal” training to diverse and changing local needs.
- The trainers may not mirror in their own pedagogies what they are promoting and teaching.
- The training is sometimes too long in duration removing teachers too long from their classrooms (Rosarin, 2017 February 15, personal communication).
- In-service training programs have not been rigorously evaluated in terms of their impact (Sumlee 2013).

In terms of the content of in-service training, the following are critically needed skill areas:

- How to use ICT creatively to foster effective learning. ICT is particularly relevant to the teaching of subjects such as English, Chinese, and AEC languages
- How to develop reliable and valid assessment tools aligned with innovations such as student-centered learning
- Strategies for promoting effective student-centered learning
- How to use assessment to promote the development of more relevant local curricula
- Techniques for promoting critical, creative thinking, and *khit-pen* (คิดเป็น) (the ability to think independently and problem-solve) (Kowit 2000, 2017)
- How to prepare students to be committed lifelong learners and *to learn on their own*
- How to help students develop critical skills for the twenty-first century

This new model for in-service teacher education focuses on sustainable on-site training in the actual context teachers are experiencing. There should be an emphasis on teachers collaborating on learning from each other while being part of professional learning communities and drawing upon the wisdom of local master teachers (Rosarin, 2017 February 15, personal communication).

18.9 Redesigning Teacher Education

Teacher education clearly has a central role to play in the improvement of educational systems, particularly when system outcomes are measured in economic terms and teachers are conceived of as key input variables. The efficient delivery of measurable gains against international benchmarks such as the OECD-PISA standardized international tests might appear currently to be the overarching goal, whereas in the past, the teacher educator’s mission might have been to produce a new kind of professional teacher who would in turn produce a new kind of morally and ethically self-regulating creative person able to respond to the risks and challenges of newly industrialized societies (Popkewitz 1998).

There is a need to search for alternative approaches for designing teacher education for the Thai education system to prepare Thai teachers better for the complex

challenges of the twenty-first century. A better fit between teacher supply and demand is the most urgent agenda. The retraining and reallocation of out-of-field teacher are a second urgent agenda. The redesign of teacher education programs is the third urgent agenda.

There is a need to encourage a major paradigm shift in teacher education. An example is the productive pedagogies research in Queensland, Australia (Lingard et al. 2003), which created a model of effective pedagogies and is utilized in about 250 classrooms in both government primary and secondary schools. There is the model developed by Newmann and his colleagues (1996) in the USA on *authentic pedagogy*. A related statistical analysis revealed a multidimensional model of “productive pedagogies” consisting of four dimensions, namely, intellectual demand, connectedness, supportiveness, and working with and valuing differences. The research found that we need to recognize pedagogies of difference rather than pedagogies of sameness. Sir Ken Robinson in England has developed new approaches to foster creativity (2011). Besides this, Dr. Maitree Inprasitha, Dean of the Faculty of Education, Khon Kaen University (KKU), has introduced the “Open Approach: Lesson Study” in both preservice and in-service mathematics teacher education since 2002. Most of the student teachers saw the positive benefits of lesson study on their professional development. Most of school students have positive attitudes toward learning through the open-approach method (<http://ednet.kku.ac.th/~wals2015/index.php?action=About> Lesson Study in Thailand). An adaptive feature of this implementation is the incorporation of four phases of the open approach as a teaching method within the three steps of Lesson Study process, the four phases of this approach are:

1. Posing open-ended problems
2. Promotion of students’ self-learning
3. Whole class discussion and comparison
4. Summing-up by connecting students’ emergent mathematical ideas

The three steps of the Lesson Study Model are collaboratively design a research lesson, observe the research lesson, and discuss and reflect on the research lesson. This model was developed in collaboration with the World Association of Lesson Studies (WALS).

Around the world, teacher education continues to be in a state of almost continual reform (see Chu-Chang et al. 2014; Ibn Junaid and Maka 2015). In some countries, traditional programs of teacher preparation located in universities have been found to be ineffective, unresponsive, and incapable of producing the human capital required for economies to be globally competitive. Unfortunately many professors in faculties of education, both in Thailand and overseas, lack actual K-12 classroom experience, and their teaching and training, thus, may be overly theoretical and abstract.

In many countries, “alternative programs” of teacher preparation have arisen and have become integral elements of reform movements. Teach for America, founded in 1990 by Wendy Kopp, was initially intended to train teachers for hard-to-staff schools in urban and rural areas in the USA – a form of urgent training. Over time,

it has developed into a major international network – Teach for All (teachforall.org) – with similar initial teacher education projects in 32 countries funded by a mix of private, philanthropic, and state/public resources. In these new forms of teacher education, the role of higher education is positioned differently in the rhetoric. The kinds of teachers required by reform movements require a different kind of preparation and therefore a new kind of work on the part of teacher educators in higher education institutes. In Thailand, the Faculty of Education, Chulalongkorn University, has been working with “Teach for Thailand,” founded in 2012, to train change leadership teachers for BMA Schools in Bangkok since 2014.

18.10 Conclusion

There is an urgent need to redesign Thai teacher education programs to create a better fit between teacher supply and demand and improve the quality of the educational system. As noted in a major report by McKinsey & Company in 2007: “The quality of an education system cannot exceed the quality of its teachers” (Barber and Mourshed 2007). Teacher education institutes must work closely with schools and the Ministry of Education in creative and innovative ways. Thailand can learn from the examples of other countries such as Singapore, Finland, and Korea which succeed in attracting top students to go into teaching (Chularat 2016; Park and Byun 2015). Park and Byun stress the importance for

Educational policy makers to make continuous efforts to improve the economic and social conditions of teachers by offering various types of incentives in terms of salaries, compensation, and benefits (e.g., housing support, leave). (p. 546)

It is imperative that Thailand develop improved incentives to attract ‘the best and brightest’ to go into the teaching field. The current Minister of Education, Dr. Teerakiat Jareonsettasin (see Appendix II), is attaching high priority to rewarding teachers who are dedicated to their actual teaching work in the classroom and improving quality (Nophakhun 2017). Also should universities have a sole monopoly with regard to the training of teachers? (see Chap. 26) (Karras et al. 2015).

To retain their leading roles in society, Thai teacher education institutes, as suggested by Mounier and Phasina in Chap. 19, must produce a “new breed of teacher.” These teachers must know their subject matter well, have a passion for it (Robinson and Aronica 2009), and be committed to lifelong learning and know how to learn on their own. They must also understand deeply the nature of student-centered and constructivist learning. They need to go beyond narrow disciplinary approaches and promote interdisciplinary thinking (Klein 1996; Kline 1995; Stehr and Weingart 2000). They must be capable of fostering creative and critical thinking among their students (Kiatiwan and Jones 1988; Kowit 2000, 2017; Robinson 2011, Robinson and Aronica 2015) and learning to be innovators. The future of Thai education ultimately depends on the quality of its teaching force and the dedicated, committed teaching of this new breed of teacher.

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Chapter 19

Quality Issues of Education in Thailand



Alain Mounier and Phasina Tangchuang

Abstract In the present chapter, we examine the pretence of a consensus about the low quality of Thai education, which in fact conceals deep discrepancies and leads to distorted and ineffective educational policies. First, the chapter unveils that seven major pillars of education reflect major flaws which adversely affect the quality of Thai education: weak curriculum and pedagogy, diploma-oriented education, vocational logic of education, too extended private initiatives and funding, weakness of decentralized educational administration, insufficient focus on educational and social inequalities, and to social cultures derived from social hierarchy. Generally, these seven factors influencing the quality of education are analysed separately through a prevalent unidimensional approach, while *au contraire* they must be considered altogether in their complex interrelations through a *multidimensional* approach.

Second, the chapter suggests related decisive actions for improving the quality of education across the board. First, we suggest consistent and related reforms of the educational system from without, namely, reducing social inequalities, revolutionizing the social order based on social hierarchy, reinstating public education as a priority, and assuring political continuity in the educational field. Second, we argue for consistent and related reforms from within the educational system – improving the rules for climbing the educational pyramid, the criteria for recruiting and training teaching personnel, the implementation of didactics in conceiving curricula and pedagogies, and eventually a research system on education for and by strengthening the teaching-research nexus.

The ambition of bettering the quality of national education across the board requires these *coordinated* actions by going beyond the current Thai political divides and instability and by abandoning short-sighted, fashionable, and internationally inspired educational policies which do not fit the Thai context.

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19.1 Introduction

The present chapter cannot be but a short introduction to the difficult and multidimensional question of the quality of education in Thailand. It draws on research findings on this issue summarized in our previous book (Mounier and Phasina 2010). That quality of education matters is a recent major concern all over the world (UNESCO 2006). Evidently this question has permeated Thai society in recent years.

Thailand has experienced a very rapid increase of the average level of education of its labour force. For the whole labour force, the duration of education has increased from 4 years in 1975, to 8 years in 2008, to 9 years in 2014, and is still increasing. It mirrors the development of mass education and a rapid rise of the rate of schooling enrolment at all levels.

Beyond the common recognition of this quantitative success, there is a general consensus among national and international observers that the quality of education in Thailand is low and even deteriorating. This consensus, however, is not the fruit of a comprehensive, deep, and objective diagnosis of Thai education. It is a general unreliable feeling, based on limited experiences, individual anecdotal evidence, and patchy observations. Indeed, the issue of the quality of education is multidimensional as it involves every aspect and dimension of national society: cultural, cognitive, social, economic, institutional, and political including geopolitical factors. That is why partial observations prevent genuinely understanding the problem of quality and that is why international comparisons of educational performances cannot be used as such, without contextualizing and reinterpreting statistical results. It is time in Thailand to take learning and teaching seriously (Shulman 1999) and to discard at once partial superficial views of narrow-minded experts and of political/ideological disputes regarding such a strategic issue seriously affecting the future of the country.

In the present chapter, Section I examines what are the bases for the consensus on the low quality of Thai education. It shows that those bases are weak and cannot be taken for granted. They have led to a partial and biased understanding of the quality of education and, consequently, have given way to very poor educational policies. Section II reveals important determinants of the low quality of education. This section is not a throughout diagnosis; more modestly it points out major flaws that should be investigated further in order to be addressed with relevance. Section III suggests related decisive actions for improving the quality of education across the board. The list of collateral and indispensable reforms that follows reveals the extremely large scope of political endeavour that would be needed to curb the declining quality trend.

The hugeness of the task at hand will force going beyond current Thai political divides; it requires social and policy stability and continuity through time; it must be built on professional competencies in teaching, administration, management, and leadership. Achieving the ambition of bettering the quality of national education is of paramount importance for the country as it is a major vector of the future.

19.2 The Quality of Education Is Defined and Measured Too Superficially

The low quality of Thai education is a recurrent theme as are enduring complaints but with no effects in terms of actual change. Although this diagnosis mirrors the true situation, in our view it is based on weak indicators that provide no cause and no explanation and consequently lead to few relevant policies.

As elsewhere, international and national tests, respectively, PISA (Programme for International Student Assessment) and O-NET, have been used in Thailand to assess the quality of education. These tests postulate that educational performances of a large sample of students suffice to provide a good indicator of the quality of education and a good index for comparative analysis through time and across countries. PISA has been carried out by the OECD every 3 years since 2000. In the year 2000, 40 countries participated in the test and that increased to 65 countries in year 2012. For that year, about 239 Thai schools and 6600 Thai students took the test (70% at the level of secondary year four and equivalent and 30% at other levels of secondary education).

This test is meant to measure students' educational performance, defined as their basic cognitive skills, namely, 'literacy', in reading, mathematics, science, and technology. As a matter of fact, PISA results, shown in the diagrams below, display a trend of low and declining quality of Thai education in comparison with other countries. Thai national test O-NET results confirm this trend (Fig. 19.1).

For most years, the best performances have been by students from Asian countries. In 2012 for the three basic test criteria, the five best ranking countries were China (Shanghai), Singapore, Hong Kong, Taiwan, and South Korea. In 2015, the five best ranking countries were Singapore, Japan, Estonia, Chinese Taipei, and Finland. During the 12 years from 2000 to 2012, Thailand's relative position deteriorated steadily down to the 50th rank in 2012. In the most recent results of the 2015 test released in December, 2016, Thailand slipped even further with scores of 421, 415, and 409 in math, science, and reading dropping to rank 54th (OECD 2016).

International comparison of educational achievements carried out by PISA does not bring any understanding of the deep roots of Thailand's poor educational performance. Moreover it encourages implicitly the short-sighted and simplistic inclination of national educational policies to copy other allegedly successful education systems without understanding why they are so successful. These tests have been severely criticized by a number of key educators across the globe (Andrews, et al. 2014). Thus, those overemphasizing these tests ignore that such test performances are determined by national contexts. In the past the system that served as a model was the USA; today it is Asian and more precisely belongs to Chinese Confucian culture-related countries such as Singapore and Japan where strong motivations for knowing and learning derive from more than thousands of years of old but enduring values and attitudes. But it is not possible to copy these models with impunity or efficiency.

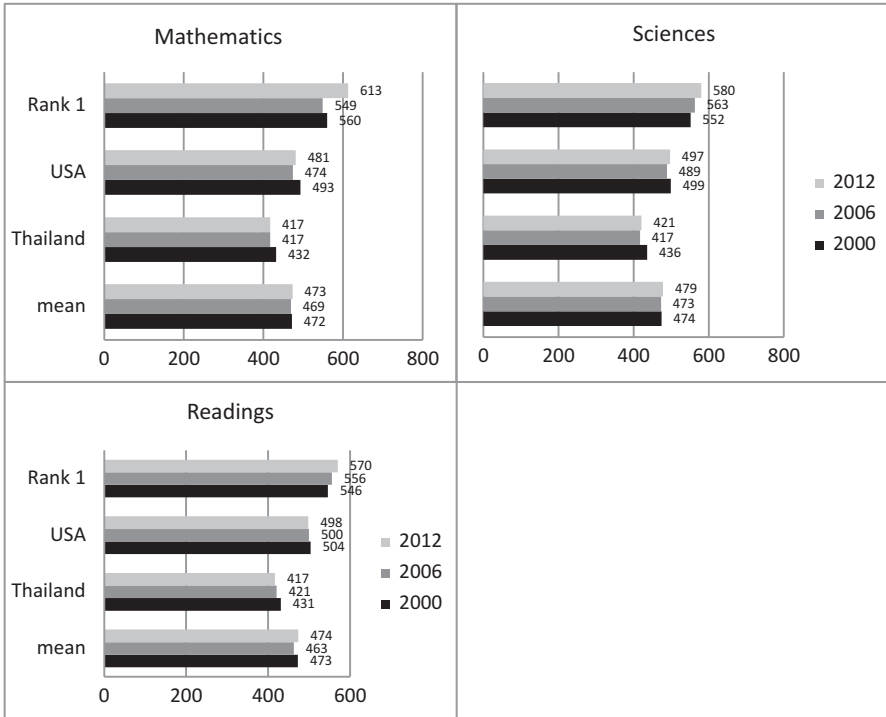


Fig. 19.1 PISA results for Thailand over time, 2000, 2006, and 2012 (Source: PISA databases, 2000–2012)

The underlying theory of such analysis is the ‘essentialist’ approach of Bloom’s taxonomy. The quality of education is viewed as the yardstick of the ‘essence’ of education which is its intrinsic nature that transcends supposedly contexts and times. This approach is normative in the sense that it proposes to bridge the gap between real situations and the essence of education, which is taken as the benchmark for an ideal education (Bloom 1956). It has inspired the idea that all over the world, there is one best practice and one best system which would ensure the best possible quality of education. This same flawed conceptual framework has inspired education reforms worldwide and been promoted by, among others, the International Monetary Fund and the World Bank.

A much more fruitful approach adopts a historical perspective which shows that the conception of the quality of education varies according to historical epochs. Indeed educational objectives have evolved through historical times from political purposes during the building of nation-states, then to economic purposes with the development of capitalist economies, and eventually to cognitive purposes with the creation and dissemination of knowledge (Kantor and Lowe 2004). Thailand has been following these same historical stages. The low quality of Thai education may

be attributed to the rather slow transition to the third phase so that knowledge creation and diffusion do not occupy yet centre stage, though quality is already being assessed by this criterion. More precisely there is a sort of concertinaing between these three phases, rooted in a slow transformation from hierarchical to individualistic Thai social structures that influences negatively the quality of education.

In our view, limiting the analysis to educational tests, O-NET and PISA, cannot but provide a limited view of quality and cannot offer a wide and good understanding of the issue at stake. A thorough comprehensive diagnosis of Thai education is needed; it is urgent to undertake it honestly, completely, and openly.

19.3 Exploring the Major Determinants of the Low Quality of Thai Education

Let us briefly summarize the major findings of our research regarding the seven major flaws of the Thai educational system (Mounier and Phasina 2010, pp. 303–316). They represent formidable obstacles to the improvement of the quality of education in Thailand. A deep and complete diagnosis of these flaws and obstacles is an inescapable condition for overcoming them.

19.3.1 Curriculum and Pedagogy: Pedagogism

The 1999 education reform mandated important changes of curricula, pedagogy, and teachers' training and status. These three areas of reform were supposed to be the basis for a major shift in the teaching-learning process from a teacher-centred towards a learner-centred approach.

In Thai educational policy, there is a permanent inclination to introduce frequent curriculum reforms, under the postulate that knowledge to be transmitted is evolving rapidly and may suffer from quick obsolescence (see Chap. 6). This is a wrong and prejudicial perspective. On the one hand, the foundations of cognitive abilities evolve rather slowly and can remain roughly the same in a reasonable term. This is true for basic and scientifically based disciplines such as languages, mathematics, sciences, geography, and history that – contrary to the utopia of the knowledge society – evolve slowly. Curricula have to remain unchanged for a cohort of students (about 12–15 years) and be affected only by minor and indispensable changes and adaptation. The need for change is nurtured in Thailand by the prevalence of 'vocationalism' that asserts that education must offer the skills in demand in the economy and therefore follows their alleged rapid evolution (Mounier and Phasina 2010, pp. 185–213; Fareed 2015). On the other hand, as cognitive content of education is moulded by teaching methods of making sense and meanings and by the purpose of developing capacities of understanding and *learning by oneself*, there is no need for

such changes because cognitive processes evolve very slowly through time. A common opinion advocates that basic knowledge and scholarship curricula should represent a trade off against up-to-date disciplinary knowledge as a source of quality. The entire contrary is true: learning efficiently requires scholarship based on a progressivist philosophy of education. There is no shortcut to knowledge. Moreover, teaching material and teachers' training have to be renewed at the same pace as curriculum changes. Curriculum, pedagogy, and assessment must be carefully aligned. Unfortunately, often they are not, adversely affecting quality. Budget, time, and skill requirements for implementing these changes meet strong constraints. This entails a lack of resources and leads to produce hastily mediocre new teaching-learning materials and new training programmes of poor quality and/or relevance (see Chap. 18). Therefore, too superficial and frequent curriculum reforms damage the quality of education across the board. Ministries of education underestimate always the negative effects of curriculum changes that they are prone to undertake hastily in view of reaping expected political benefits and good public relations.

The will of the 1999 reformers to promote 'student-centred education' was supposed to have introduced a progressive pedagogy where the role of the teacher is to adapt the progression of studies to every student's abilities within the binding framework of the curriculum. This change is certainly necessary, but it is far from being a panacea for improving the teaching-learning process. A risk of adopting this orientation is to dissociate the ways of teaching and learning from the disciplinary knowledge which is taught, so that innovations are limited only to changes in pedagogical methods. This is the risk of pedagogism where the pedagogical innovations are made for the sole sake of innovation. A real step towards the improvement of the quality of the teaching-learning process is to adopt a didactic approach that we propose later.¹

19.3.2 *The Diploma Disease: Credentialism*

The thirst for higher diplomas, which refers to the inflation of credentials called 'credentialism', has its roots in three sources. Firstly, there is the demand of employers – in particular public administration as requisite for recruiting civil servants – for increasing educational qualifications of applicants for unchanged job positions and for performing similar jobs with previous qualifications. Secondly, the democratization of education has intensified competition between individuals for social positions, which has in turn triggered a race for higher diplomas. Thirdly, educational institutions are granting more and higher diplomas without ensuring that their graduates have acquired the level of knowledge that diplomas are meant to certify. This inflation of diplomas has been called the 'diploma disease' characterized by the multiplication of diplomas with weakened scholarly value (Dore 1976; Fry 1981; Mounier and Phasina 2010, pp. 119–237).

¹ See below Sect. 19.4.2.3.

The leading forces behind credentialism and the ‘diploma disease’ are actually educational institutions themselves. They seek to create a demand for longer periods of study and higher diplomas among employers and households, and they lobby governments to support what they want. Educational institutions seek more budget and fame by increasing enrolments. For this purpose, they offer more programmes – more options and streams in schools or in bachelor, master’s, and doctoral programmes in universities. To attract a continuous stream of applicants on a long-term basis, they have to ensure that all their students will eventually get a diploma whatever their educational achievements. This implicit deal becomes even more crucial when fees are high and students are viewed as ‘customers’. The deal can be honoured by lowering the standards for acquiring diplomas and relaxing the criteria of assessment. The inflation of diplomas increases the average duration of studies and creates the illusion of the improvement of Thai education, while the contrary is true: the knowledge content of diplomas is decreasing because of the lack of competencies required in teaching and management and because of the very lax assessment of scholarship and cognitive abilities.

Indeed, another negative effect of the diploma disease is the increasing lack of teachers and professors with the competencies required to maintain high-quality standards. The competition between educational institutions leads to ‘head hunting’ and the use of a subterfuge which is to enlist (and pay) acting shadow teachers and professors selected for their name and fame in order to meet the ministry requirements for authorizing and legalizing the stream or the diploma offered. This practice conceals the serious problem that quite often acting and real teachers and professors do not have the credentials for teaching in the diploma programmes they contribute to deliver.

This is obviously detrimental to the quality of education across the board. More research is urgently needed in this area, in particular to find out who the leading actors are and what major factors are at play in this race to the bottom of quality. Our hypothesis is that vocationalism, profit-driven education, and localism are major vectors contributing to Thai credentialism and the diploma disease.

19.3.3 Jobs, Skills, and Education: Excessive Vocationalism

Throughout the world, the most popular and widely held belief regarding education is that education produces the skills in demand in the labour market. The impact of this belief on the quality of education is devastating. Thailand is not spared from this myth. Although the majority of employers assert that productive skills are much better forged in the real conditions of the workplace through learning by doing than in the formal education system, they are not heard. Curiously, the propaganda of educational institutions has convinced not only students but the stakeholders of education in general and even experts of education that the opposite is true. The propaganda claims that improving the quality of education requires reorienting education towards a vocational mission so as to satisfy the needs of the economy for practical

productive skills. Trying to build ready-to-employ person power, unfortunately, means that educational institutions adopt narrow vocational instead of cognitive objectives.

This orientation is senseless for at least two reasons. Firstly, education is not well equipped for developing work-related technological and behavioural skills. In fact, when educational institutions attempt to do so, they offer only a poor substitute made up of practical knowledge of narrow scope and short-term relevance. Basic job skills can be learned in vocational education, but the real skills required can only be acquired on the job. Moreover, the rudimentary skills and little know-how that students have learned at school will soon become obsolete with technological change, making the efficiency of vocational education particularly low. Secondly, when educational institutions adopt a vocational orientation, they neglect or even forget what should be their major role: to foster and enhance cognitive and analytical skills. Cognitive skills comprise, on the one hand, of being able to do scholarship and, on the other, the ability for self-learning without the need of guidance by a teacher (Mounier 2001). For both general and vocational education, the role of transmitting knowledge and building cognitive skills is the same, albeit they have to use two different didactics. General education adopts a ‘deductive’ approach to learning, while vocational education uses an ‘inductive’ which is better adapted to students with practical rather than abstract intelligence (Gardner 2006).

Educational institutions align their strategy with the alleged technological needs of the economy with which they are not normally familiar and know only very superficially. By doing so, they lose the autonomy they need for organizing a decontextualized and systematic development and transmission of knowledge. Their misdirected orientation ultimately harms the quality of education as a whole. The right track is knowledge-driven education. This orientation would bring a twofold benefit by improving directly the quality of the teaching-learning process in educational institutions and by forging cognitive abilities that fuel the acquisition of skills on the job by learning by doing. Unfortunately, the expansion of profit-driven and business-oriented education drives the entire educational system towards the wrong direction of vocationalism (Mounier and Phasina 2010, pp. 239–268).

19.3.4 Rampant Privatization, Profit-Driven Education, and Corruption: Commodification

With neoliberal hegemonic ideology, education has been transformed from being a public service offering a public good into a more or less private activity offered as a ‘commodity’. Education as a public good is universal and free; as a commodity it is sold and bought for money in a market that may be domestic or international. This market orientation has been brought about by both an open and a rampant

privatization of education. All over the world today, education is becoming a business. There is an ideology that enhancing an educational market is the best, easiest, shortest, and cheapest strategy for improving the quality of education. In fact, it is believed that competition among educational institutions and their business-like management with a supplier-customer money-based relationship operates a Darwinist selection of the best schools, teachers, and students. This belief is not sustained by any solid theory or evidence and exacerbates disastrous educational inequalities. In fact, the Thai education reform of the year 1999 launched a wave of rampant privatization imposed by the World Bank, Asian Development Bank, and IMF as conditionalities included in structural adjustment programmes and economic rescue packages. As a matter of fact, privatization of education continues surreptitiously by being concealed underneath the strategy of ‘accountability’ pushed by the World Bank and revived in Thailand by the Thai Development Research Institute (Bruns et al. 2011; Somkiat and Supanutt 2012) (see Chap. 10).

Rampant privatization of public institutions is taking place in the name of making schools more ‘effective’ and universities ‘autonomous’ (see Chap. 10). These public institutions are increasingly adopting business management methods and embracing the logic of profit-making organizations. Schools are becoming educational service producers. Teachers and professors are downgraded to mere skilled employees. They are no longer accountable to the whole society but to their employers only. They are paid according to their performance, as regular wage earners. They are subjectively evaluated by their students who use this prerogative as leverage for getting better marks and laxity of assessment. Students are no longer learners and human beings cared for by their teachers. Their status is to be mere clients or customers who have to be serviced according to what they pay. There are even petty and apparently inoffensive ways of privatization that plague education such as private lessons and rapidly growing ‘shadow education’ (see Chap. 25). By introducing money into the relationships among parents, teachers, and schools, they produce so many perverse effects that they should simply be prohibited or at least strongly regulated and taxed.

Commodification through rampant and open privatization ends education as a public good and a cognitive-driven activity. Education becomes subordinated to vocationalism and to the demands of students and families who do not seek to develop their knowledge and cognitive capacities but to buy passports to well-paid jobs and higher social positions. Ultimately privatization exacerbates educational inequalities and reverses the trend of educational democratization by discouraging the poor from sending their children to school beyond compulsory education. Privatization finally opens the door to corruption – petty and big, as well – all along the educational chain. Defined as ‘systematic use of public office for private benefit, [corruption has a significant negative] impact on access, quality and equity in education’ (Hallack and Poisson 2002). At the end of the day, privatization lowers significantly the average quality of education.

19.3.5 Social and Educational Inequalities: Elitism

Despite an outstanding and rapid democratization of education during the last four decades, Thai education has suffered inevitable shortcomings and in particular increasing inequalities. The poorest children of the country have been left behind and have not benefited from decent and fair schooling (see Chaps. 13 and 14). This failure is not acceptable for both equity and efficiency reasons. The cause of the problem is commonly identified as the unavailability of educational services to these children or the incapacity of parents to pay for their education. It is certainly an injustice to deny some children the same right to education as others, and this situation must be rectified. But solutions are not as straightforward as commonly believed.

As a matter of fact, educational inequalities reflect social inequalities rooted in the social and cultural context (Mounier and Phasina 2010, pp. 144–158). Renowned sociologists such as Pierre Bourdieu and Jean-Claude Passeron have shown that the social structure is segmented between different subcultures belonging to the different social classes (Bourdieu and Passeron 1977, 1979). Social classes are endowed with specific cultural capital that underpins their respective educational performances and nurtures educational inequalities (Bourdieu 1997). National educational systems and curricula are conceived by the elite and serve primarily their reproduction and their subculture that marginalizes the subculture of the poor. This results in those from lower classes performing poorly at school because they have more difficulties to enter the dominant subculture prevailing in education (Bruner 1996). This inequality has been documented for Thai education by a strong relationship between level of household income and educational performance (Dilaka 2012). By the same token and for the same reasons, urban areas perform better than rural areas (Somkiat and Supanutt 2012) (see Chap. 14). Economic solutions such as effective free education and scholarships certainly contribute to reduce educational inequalities. They cannot, however, erase all of them and in particular those related to cultural segmentation that can be tackled only by differentiating teaching didactics as we will see below.

Educational inequalities are made even worse by privatization and commodification. They tend to increase and to divide the national education system into different subsystems dedicated to various segments of society. A first subsystem consists of private and ‘reserved’ or highly selective public institutions offering education of higher quality to the rich minority. A second subsystem is composed of open public institutions providing cheap education of mediocre quality to the poorer majority. This segmentation may transmute the educational divide into an even deeper social divide. Unfortunately, the secession of the elite and the upper middle classes from public and egalitarian education is not the best way to improve the quality of education across the board nor is it in the national interest. Further research should explore the issue of inequalities – educational, economic, social, and cultural – and their

links to privatization, commodification, and the hierarchical nature of Thai society² (see Chap. 13).

19.3.6 Administrative Devolution and Efficiency: Localism

Since 2002 with the continuing implementation of the 1999 Educational Act, an important concession to localism has been made by Thailand's education reformers with the deconcentration of central administration and the creation of 175 educational service areas – which have been increased to 225 currently. Educational service areas are actually local representatives and arms of the Ministry of Education (Mounier and Phasina 2010, pp. 63–78). The present debate continues about the project of devolving the function of educational administration to local authorities. A new structure for decentralization, emphasizing the province, was approved in March 2016 (see Chap. 4) (MOE 2016).

The idea of decentralization emanates from the persistent complaint that the Bangkok bureaucracy of the Ministry of Education is overcentralized and therefore inefficient; this complain may be justified, but in that case, the logical course of action would be to propose ways to improve the efficiency of educational central administration rather than multiplying layers of an often inefficient decentralized bureaucracy. Such a proposal has never been put forward. In fact, this complaint is borrowed from the neoliberal-inspired and circumstantial argument that aims at weakening an alleged liberticidal and inefficient central state. Devolution of administrative power to local authorities is postulated to close the distance between administration services and users and consequently to get better-fitted and democratic decisions. We seriously doubt this claim because the truth lies in the opposite direction.

On the one hand, the necessary competencies and expertise currently available in the central administrative body of education cannot be replicated in every local authority. The demands and costs are immense to provide every local authority with the skills necessary for performing crucial tasks such as recruitment and training of teachers, design and development of curricula and textbooks, and organization of collective tests and examinations (see Chap. 23). In fact, devolution would cause a general decline in administrative efficiency and increasing differentials in the quality of education between localities (see Chap. 14).

On the other hand, devolution means 'contextualization' of education: it submits educational institutions to their surroundings, to the will of local authorities, to external influences and vested interests, and to local particularities while improving the quality of education requires, on the contrary, the 'decontextualization' of the teaching and learning process. In fact schools are submitted more than before to local bosses; patron-client relationships are reinforced, and doors are opened to petty corruption. Not only do teachers have to dedicate more time to useless

² See Sect. 19.4.1.1 below.

administrative tasks, they have also to execute fussy and too often politically motivated orders of school heads and educational authorities. Further concession to localism would reinforce the ongoing shift from an academic to a political logic of education.

More research is needed on this difficult issue. Alternative ways of organizing educational administration for improving the quality of education should be explored (see Chuachan and Aroonsi 2013).

19.3.7 Knowledge and Social Hierarchy: Conformism

Historically there are three social and political attitudes towards knowledge influenced by three major philosophies of education (Mounier and Phasina 2010, pp. 78–79).

The oldest one is the perennialist philosophy of education. In this view, the only true knowledge is the truth inherited from the past (beliefs, behavioural codes, rites, norms, know-how) and the attributes of old, of noble descent, or of wise people. These values are deeply embedded in Thai culture. More generally in hierarchical societies, knowledge is an attribute associated with those in higher social positions and having power. It cannot be questioned nor changed. Its transmission through generations implies its copy without alteration. Perennialism produces social conformism and mimicry. Thai education is still largely inspired by this philosophy.

The second major philosophy is the progressivist philosophy of education. It characterizes modernity across the world. Knowledge is the accumulation of discoveries generated by a systematic search for evolving truths produced by rational and scientific methods. It is transmitted to the newcomers by progressive instruction and pedagogy using a Socratic method: questioning ceaselessly established but impermanent truths. This philosophy is still struggling to establish itself in Thai education, in particular through the superficial slogan of ‘critical thinking’.

The third philosophy is postmodern. Knowledge is equated with information. There are no absolute truths, whether scientific or cultural; there are only individual tastes and desires. Education is a domain of individual choices within the supply (inventory) of world information. By legitimizing private education, this philosophy is currently influencing educational systems across the globe. Thai education of the elite and the upper middle class favours this philosophy as a legitimation of the reproduction of their own social status. However, on the whole Thai education holds still firmly to a perennialist philosophy. Perennialism nurtures conformism and mimicry which are evidently major factors associated with low quality.

In Thai society and culture, knowledge is the prerogative of a few – yesterday the old and the ruling class and today the scholars and the elite. There is a general feeling that acquiring knowledge and scholarship is a bold and subversive act which calls into question the social hierarchical order. Asking challenging questions is

confronting an individual's knowledge, authority, and social status. This feeling runs from within the household, bureaucracy, and school administration and classrooms. In the educational system, asking questions is not always welcomed and is barely part of the teaching-learning process. In the Thai-dominant view, learning must be circumscribed to repetition, rehearsal, and the acquisition of a ready-made way of thinking because conformity and mimicry are felt as preserving the respect of hierarchical social relationships. Excluding questions from social relationships is dramatically excluding the mere exercise to learn and to think independently.

This sort of hierarchical interdict of asking question erects a national context hostile to education in that sense that it drives to a popular disinterest in cultural and intellectual activities such as reading, writing, reflecting, creating, and debating. As a consequence, there is a common lack of outward curiosity about both important subnational, regional, and international cultures. This does not augur well for Thailand's preparation for participation in the AEC. This is perhaps the major negative impact that the general context exerts on the whole educational system. Overcautiousness towards general knowledge translates negatively in formal education. This societal trait is difficult to overcome.

More and more forces try to drive Thai education out of this conservative and stagnating logic. They have frontally criticized conformism and mimicry. More and more people advocate an education that develops cognitive capacities and enhances individual capacity to think, to reason, and *to learn by oneself*. The late Dr. Kowitz Varapipatana, the father of Thai nonformal education and deeply committed to life-long learning, emphasized the need to cultivate *khit-pen* (capability to think) (Wiwat 2013). He was greatly influenced by the Brazilian educator, Paulo Freire. Unconsciously, unaware criticisms amount actually to advocating a social revolution that transforms thoroughly social relationships to knowledge. This revolution is far beyond the grasp of education. Popular criticisms echo today's popular themes of teaching and learning such as critical thinking, problem solving, teamwork, initiative abilities, and lately creative thinking. Ignoring the complex links among culture, social relations, and knowledge, they borrow these themes from abroad and turn them into slogans with little chance to being relevant and becoming reality.

In the long term and using a broader perspective, the low quality of education may result from the persisting transition from a hierarchical to a more individualist society. During a long period, this transition will underpin a heterogeneous philosophy of education made up of an eclectic mixture of perennialist, progressive, and postmodern philosophical streams; this conflicting contradictory heterogeneity cannot provide a coherent thread for reforming education and improving its quality.

For addressing, seriously, the issue of the quality of Thai education, research must explore further Thai complex relationships among knowledge, culture, and social relationships. It is a huge and exceedingly urgent task.

19.4 The Urgent Need for a Comprehensive New Reform of Thai Education

Proposed solutions and reforms designed to improve the quality of Thai education are legion. Their number and their recurrence indicate that none has been successful. A recent survey of the content and ongoing implementation of the 1999 National Education Act assesses that the initial reform is well-oriented and well-conceived but extremely slow to be implemented because of the reluctance of school heads and teachers (Hallinger and Bryant 2013; Hallinger and Lee 2011) (see Chap. 22). We have argued the opposite that the slow change in the furrow of the 1999 educational act comes from a rough and superficial diagnosis of the situation and a sinuous track due to the lack of clear-cut philosophical foundations (Mounier and Phasina 2010, pp. 63–107 and pp. 109–140).

Policies tackling the arduous issue of quality must reconsider inner characteristics of the system of education; and they have to expand their action to an often neglected domain: the social and institutional context of education. This is a draconian condition for success. Obviously we cannot share here much more that rough new perspectives on what genuine reform might look like.

19.4.1 Reforming the Social and Institutional Context of Education

19.4.1.1 The Need for Reducing Social Inequality

As asserted above, it has been demonstrated that social inequalities determine sharply educational inequalities which in turn lower the quality of education across the board. Reciprocally reducing inequalities improves the medium quality of education. Therefore, contrary to the argumentative theory that advocates selection and competition in the educational arena which enhance inequalities, the right course of action is to tackle social inequalities by reinforcing the welfare system. Thailand is in the process of building its welfare system (Voravid and Mounier 2011, 2012); then speeding its development up will contribute to improving the quality of education.

19.4.1.2 Revolution in the Social Hierarchical Order

This revolution is under way in Thai society in particular with the expansion of the middle class that acts and militates for more individual liberty and responsibility. This societal transformation is slower in the educational system where bureaucracy is an impediment for the blossoming of individual initiative and commitment in the

teaching-learning process. Modern didactics that modifies the relations between teachers and students should accompany this societal evolution.

The popular disinterest in cultural and intellectual activities and the common lack of outward curiosity that we have mentioned above is difficult to overcome. However, it can be suggested that a dense network of cultural groups in each village and urban district be created. Each group should involve the whole adult and teenage population and be related to schools and temples (see Chap. 8). Their purpose would be to foster the taste of knowing, discovering, and debating. This could be an ambitious national programme by building facilities, materials, and encounters in each corner of the country. A vivid cultural context would contribute to transform motivations and attitudes of the population, old and young, towards knowledge and learning.

The hierarchical functioning of education can be progressively changed with some important decisions in view of liberating teachers from heavy bureaucratic activities, by limiting the involvement of parents in formal education as they are not professionals of education, and by staffing provincial education committees and education service areas with competent, experienced, and well-trained personnel.

19.4.1.3 Defence and Illustration of Public Education

Stimulating the cognitive logic of education requires decontextualizing education by protecting it from the encroachment of political and economic vested interests. As public education is the only way of decontextualizing education, the trend to increased privatization has to be stopped. Of course reasserting education as a public good would imply some thoughtful increase of the national educational budget; this would be more than justified by large compensating social benefits.

It is time for the government not to listen to the sirens of educational privatization in all its disguises and to restore, beyond lip service, free and *quality public education for all*. There is no alternative if Thai society really wants to avoid social divides and improve its quality of education.

19.4.1.4 Procedures of Education Reforms: The Need for Political Continuity

It is well known that in Thailand, ministers of education are short-lived (20 ministers in the last 17 years) (see [Appendix I](#)). This instability translates into hastily elaborated political measures, too many changes according to political regimes and ministers' fancies which can be highly damageable for real improvement. Educational administration cushions and redeems somehow political instability, but it may suffer permanent pressures to curb previous political orientations for giving the way to new ones. As improving the quality of education takes time and requires *policy continuity*, responsible governments should elaborate long-term educational quality plans. This is an extremely binding condition for success in reforming the

educational system itself. In that regard, all political parties and stakeholders should sign a gentlemen's agreement, a kind of 'meta-law' written in marble, and enact precise rules and procedures for both marginal and comprehensive improvements.

19.4.2 Reforming the Educational System from Within

A bold and consistent reform of the educational system from within can be implemented through appropriate educational policies. Some institutional, organizational, technical, and financial/budgetary transformations are currently in vogue, whether being implemented or envisaged. They should be revised to be coherent with missing larger issues. Four major related domains have been neglected and must be given much attention because they are decisive determinants of the quality of education: interdependencies in the educational chain, the issue of the teacher, the reshaping of the teaching-learning process through didactics, and finally the important issue of research on education.

19.4.2.1 Interdependencies in the Educational Chain

The educational chain is the backbone of the education system (see Chap. 4). The chain underlines the reality that each level of education is dependent on all other levels through both bottom-up and top-down relationships of the educational pyramid (Mounier and Phasina 2010, pp. 183–213). In the hierarchical organization of the educational system, institutional arrangements of levels and streams of studies are based on the observation that building cognitive abilities requires a progression from simple to complex knowledge.

This progression is inscribed in a bottom-up organization of educational levels and implies that the quality of education at each level depends on the accumulation (and assimilation) of knowledge acquired at all previous levels. Tests, examinations, and diplomas are designed for assessing this acquisition and displaying the corresponding scholarship. Lax evaluation and credentialism do not certify truly knowledge acquired at each level so that defaults and flaws at one level of education adversely influence the next levels and jeopardise progressively the quality of education across the board.

In the top-down organization of the educational chain, higher education occupies the top of the pyramid and irrigates the whole system as it produces inputs such as pre-service and in-service training for teachers, professors and administrative personnel, teaching and learning materials, as well as disciplinary and pedagogical knowledge. In that perspective higher education is a key contributor to the quality of education across the board.

This two-way dependency plunges the educational system into a vicious circle: the low quality at the bottom contaminates up to the top which in turn transmits its low quality down to the bottom. The big question is how to break this vicious circle.

Beyond a reform of tests and exams throughout the system, three major changes would do the job – reforming teachers' recruitment and management, inoculating didactical concern and skills in the teaching personnel, and grafting a researcher's mind and reflexes to any actor in the chain. These three programmes would have to be applied simultaneously and consistently.

19.4.2.2 Training and Recruitment of Teaching and Administrative Personnel

Those engaged in carrying out education reforms all over the world recognize that improving the teaching skills of teachers is crucial and must be the priority of educational policies (Chang et al. 2014; UNESCO 2004). In Thailand as a complement to the 1999 education reform, a comprehensive legal framework for the formation of 'a new breed of teachers' was enacted in 2004. Here more than on other issues, the vicious circle of Thai education is at work: teachers and teachers' trainers are part of the problem of quality, but they are also an inescapable part of the solution (Annop 2011).

Increasing teacher pre-service duration of studies from 4 to 5 years has been a major step designed for improving the skills of teachers. Actually, lengthening studies has had dramatic adverse effects: it has worsened an already alarming lack of teachers and exacerbated in turn the lack of competent and dedicated trainers of teachers. Instead, the issue of teachers must be tackled through three key policy measures:

1. Increasing salaries. Increasing quite significantly salaries and defining clearly and generously rules of promotion are crucial. It would stop the trend of decreasing interest in teaching as a profession and reverse the adverse selection of students who envisage embracing a teaching career. It may improve teachers' declining morale and involvement and may restore their social status.
2. Alleviating teachers from excessive administrative tasks and reports so that they can dedicate the bulk of their work time to teaching, producing academic materials, researching (see below), and supervising closely students.
3. Transforming radically the content of pre-service and in-service teacher training by focusing on didactics. In fact this is the missing link in the legislative body enacted since 2004 for training a new breed of teachers. A permanent 'dual' (alternate) training on the job and in faculties of universities should be developed for both pre-service and in-service education. In this endeavour, a comprehensive programme of 'reflexive teachers' should be undertaken on a large scale (Phasina and Mounier 2009; Phasina 2011). Public universities should provide the core of the content of new didactics, set a new breed of teachers' trainers, and provide training facilities all over the country. Faculties of all disciplines should collaborate closely with faculties of education to implement a 'didactic permanent revolution'.

19.4.2.3 Didactics of Disciplines: Opening the Black Box of Thai Education

Didactics is the discipline of educational science that explores and explains the relationships among knowledge, teachers, and learners through lifelong cognitive development.³ Altogether these relationships form a didactic system which is a key factor underlying the quality of education. This discipline opens the black box of the teaching-learning process and explores it from within (Mounier and Phasina 2010, pp. 269–301). It is our contention that didactics may eliminate the risk of pedagogism and that it has not received not nearly enough attention in Thailand (Hamilton 1999).⁴

Broadly defined, didactics focuses on processes by which the entire human knowledge is selected to be taught, disseminated, and transmitted in both formal and informal education. It explains the gap between human knowledge of a given epoch and acquired knowledge of a population in term of scope and depth. Didactics is generally normative, but it can also be interpretative by describing the real practices of teachers and learners (Kansanen and Meri 1999). Briefly a didactic system can be defined precisely by four major relationships among knowledge, teachers, and learners:

- *The transposition process* is the path from scholar knowledge to teachable knowledge. The transposition process takes place through choices of content articulated in curricula, textbooks, teaching plans, and classroom teaching. Transposition is the first strategic operation that organizes the progression of studies and chooses pedagogies according to the nature of the knowledge to be delivered. It must fit previous scholarship and cognitive capabilities of students in order to develop them. Transposition has been explored mainly for mathematics and sciences⁵; it has to be extended to all subject matter.
- *The didactic contract* is an implicit agreement between the teacher and students regarding the relationships and interactions they will have in the classroom. The didactic contract is the reality of practice of teaching and learning which differs more or less from curriculum and official study programmes. Teachers have to be trained for making explicit this agreement so that the functioning of the classroom can be improved.
- *From naïve to scholar knowledge* is the very transformation of the learner knowledge operated by teaching. Naïve (that is previous) knowledge has to be deconstructed in the process of delivering new knowledge. As naïve knowledge is inherited from culture-based beliefs, family backgrounds, and previous fuzzy learning and thinking, it implies that pedagogy has to be differentiated according

³Phenomenon theorized by educational philosophers such as John Dewey, Jean Piaget, and Lev Vygotsky.

⁴Probably because, unlike in continental Europe, the concept of didactics is estranged in Anglo-Saxon education.

⁵The Institute for the Promotion of Teaching Science and Technology of Thailand (IPST) is a kind of pioneer in this field, but the path is still long to go.

to students' social origins and educational careers. To be taught efficiently through the diversity of the transposition process and the didactic contract, classrooms have to be downsized seriously for being more homogeneous, entailing the need for more teachers and therefore for preceding measures regarding their recruitment and training.

- *Evaluation and selection* of students through exercises and examinations have to be changed dramatically. Rather than the mere ranking of students made for fostering competition, evaluation has to be designed so that knowledge acquisition, understanding, and building meanings can be stimulated and teaching methods can be tuned and refined. From this perspective 'objective' multiple choice tests have to be banned entirely.

The didactic revolution that we advocate cannot be straightforward and assimilated to hasty adjustments of curricula or pedagogies. This revolution has requisites such as a better understanding of the learning process in Thai culture, a new design of the progression of studies, and new pedagogies based on contemporary conceptions. This revolution will take place if the country can conduct a revolution in research which is another currently weak component of the educational system.

19.4.2.4 Creating a Comprehensive System of Scientific Research on Education

Developing research capabilities is of paramount importance for enhancing significantly the quality of Thai education. Unfortunately, in Thailand there is a very poor vision of what educational research is about and should be. Few studies have surveyed the organization, practice, and results of educational research and almost none have assessed the impact of research on the quality of education (Tisana 1999; Sanit et al. 2014). A thoroughly comprehensive and deep study of research activity in Thailand is much needed and must be undertaken urgently by a consortium of involved institutions (Office of the Educational Council, Office of the National Research Council, Thailand Research Fund, and universities). What we do know is that research programmes are generally too small, too dispersed, and too discontinuous; moreover, they are very superficially evaluated. Research is currently project-based, and for this reason, knowledge and research skills cannot be accumulated and improved. Programme-based research and permanent research centres should be the rule so that research skills, materials, and results can be accumulated and developed.

At the national level, a public but independent *National Education Research Institute* (NERI) supported by the government should be created for developing comprehensive, continuous, and innovative research on education, particularly on history, philosophy (often implicit and concealed), sociology, economics of education, and on curricula and pedagogies. A strong emphasis should be given to didactic practices by looking at the gap between official and hidden curricula, at teachers' styles, at pedagogical habits, and at teaching-learning materials. The Institute for

the Promotion of Teaching Science and Technology (IPST), created in 1972, could be a model provided it is enlarged. NERI should elaborate a long-term plan on research on education and disseminate its visions and methods across Thai institutions in order to promote dynamic rigorous scientific educational research all over the country.

The research-teaching nexus (or its absence) has to be investigated for each curriculum (Willcoxson et al. 2011). For efficiency reasons, such programmes should be carried out by professors and teaching personnel themselves and not be delegated to professional researchers who do not teach, or to Master's and PhD candidates as it is too often the case. Such programmes should involve also schools and education service areas. They could be developed under the banner of reflexive teachers.

Building strong research capabilities requires building permanent research laboratories based on permanent teams, collective endeavours, accumulation of experiences and skills, and accumulation of research material along a medium-term master plan. This is the only way to improve the general quality of research in the country and to contribute efficiently to the improvement of quality of education (Phasina and Mounier 2012).

19.5 Conclusion

The danger of a good summary or a strong conclusion of any paper is to drive readers in a hurry towards hasty readings and superficial understanding of the issue at stake. This is what reflection on the quality of education in Thailand must avoid at any cost, because precisely a new, focused, and bold investigation on this extremely broad and crucial issue is dramatically needed.

Among other themes, the seven major flaws of Thai education that we have identified in Sect. 19.3 above as major causes of the low quality of education have to be investigated deeply and on a large scale. They have to be documented entirely through ambitious and continuous field surveys by applying rigorous research methods. We cannot but urge educational authorities and universities to undertake such research programmes on a permanent basis to enlarge, accumulate, and update knowledge on educational experiences and issues at national and regional levels.

Many of the different chapters of the present book deal in one way or another with the quality of education. In fact, most of them are reductionist in that they focus on only one facet of this huge question. Given their own perspectives, most authors stress separate determinants of the quality of education, such as out-of-date learning and teaching methods, or lack of number and proficiency of teachers, or biased methods for evaluating educational attainment. Some others stress inefficient organizational factors such as the over-centralization of the administrative system, obsolete school management, and inappropriate behaviour of key stakeholders. These authors illustrate mostly a unidimensional approach to the quality of education. As we have shown in this chapter, the best and only relevant approach, for treating the complexity of the question of quality and of intertwined factors and

flaws, is a *multidimensional* one. Only rigorous scientific research can help to develop a deep and real multidimensional diagnosis of the state of Thai education and to bring insights and effective solutions to the failing and disappointing quality of education.

Efficient educational policy has to address the basic question of the interdependence of educational levels along the pyramid of the educational system in order to eliminate incoherencies in the rules of climbing the pyramid. In particular, evaluation and exams, checks of acquired knowledge, rules of requisites, and equivalence will have to be thoroughly reformed. The training and recruitment of a *new breed of teachers* will have to be undertaken seriously on a long-term basis. In-service and pre-service training must be conceived entirely anew. A didactical logic must be imposed and underpinned on a much needed research-teaching-learning nexus. Inside the educational system, the key to quality improvement is this 'didactical revolution' that must be given a strong impetus. For providing guidance on all these topics, educational research concepts and organizations will have to be reformed comprehensively throughout from top to bottom.

A real difficulty of educational policy designed for redressing the declining quality of education is that education is deeply embedded in Thai society and culture and cannot be isolated from it. Therefore, the scope of educational policy has to go beyond the educational system itself and reach the perimeters of related cultural domains and social structures (see Chap. 2). In particular, the questions of social inequalities, hierarchical relations to knowledge, privatization, and policy continuity in surroundings of political changes have to be addressed comprehensively in order to fulfill necessary conditions outside the education system for improving the quality of education across the board.

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Part V
Planning, Policy, Reforms, Leadership,
and Accountability

Chapter 20

The Evolution of Educational Policy and Planning in Thailand: From NEC to ONEC and OEC



Gerald W. Fry and Waraiporn Sangnapaboworn

Abstract The organization that is directly responsible for formulating educational policy and planning in Thailand is the Office of the Education Council (OEC) under the jurisdiction of the Ministry of Education. This chapter describes the evolution of the policy and planning process in Thailand from the first educational plan prepared by Chao Phraya Pasakornwong in the late 1800s to the situation today. It describes the key organizations over time that have been responsible for educational policy and planning, namely, the National University Council (NUC), the National Education Council (NEC), the Office of the National Education Commission (ONEC), and, currently since 2003, the OEC. The chapter concludes with a discussion of the strengths and weaknesses of the OEC and recommendations for how it could be improved.

20.1 Educational Policy and Planning, King Chulalongkorn the Great Reform Era to 1955

It was only with the accession to the throne of King Chulalongkorn that Siam's first ever education plan was developed. Initially the King's half-brother Prince Damrong was given the authority to develop education and was Siam's first or temporary minister of education. He was sent to England to study its educational system as a possible model for Siam. When he was moved to take over the Ministry of Interior, he was followed by other ministers such as Chao Phraya Pasakornwong (Porn Bunnag), the first official Minister of Education when the Ministry was officially established in 1892, and Chao Phraya Phrasadet Sureintatibodi (M.R. Pia Malakul) (The Bunnag

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2016; MOE 2009, 2013). The latter was the father of the influential future minister of education, M.L. Pin Malakul. M.R. Pia was also famous for composing the renowned book, *Sombat Phudee (Character of the Noble Man)* (Pia 2015).

Chao Phraya Pasakornwong studied in England for a few years and also saw that nation as a model for Thai education. He enlisted an English consultant who drafted Siam's first national education plan in English which was translated into Thai by Pasakornwong. The King, however, found the plan hard to understand and confusing. Actually, the education plan proposed by Chao Phraya Pasakornwong was quite modern since it stipulated that people should take part in providing education by paying an educational tax. However, such a radical development was perceived improper when the country was encountering a political crisis. After the education plan proposed by Chao Phraya Pasakornwong was rejected, the idea of education provision proposed by Phraya Wisutsuriyasak (M.R. Pia Malakul), the then Siamese ambassador to England, France, Belgium, and European countries, was considered instead. Finally, it was approved and promulgated as *Khronkhan Sueksa (โครงการศึกษา 2411)* (the 1868 Education Plan).

According to the plan, education provision was divided into two parts. Education provided in the Bangkok area was under the responsibility of the Department of Education, while the duty of providing education upcountry was shared by Buddhist monks and the Ministry of Interior. Education was divided into two systems. One was general education ranging from elementary to secondary and tertiary education. The other was special education for specific purposes, such as teacher education, art, law, medicine, and agriculture. In 1902 Chao Phraya Pasakornwong resigned from his post due to deteriorating health and was replaced by Chao Phraya Wichitwong Wuttikrai (M.R. Klee Sutat). It was also in this year that Phraya Wisutsuriyasak (M.R. Pia Malakul) was appointed the Director-General of the Department of Education. Phraya Wisutsuriyasak realized that education then was not popular as parents did not want to send their children to school. Therefore, it was necessary to restructure education by dividing it into (1) general education which is fundamental for everyone to learn to be a good citizen and (2) special or technical education for those who wanted to pursue career study. General education which was under the Department of Education was divided into primary education, secondary education, and tertiary education. Phraya Wisutsuriyasak thought that general education should be provided for all people nationwide with the temples and monks taking part as schools and teachers at the primary education level. The Department of Education was responsible for providing secondary education which was provided in Bangkok only. He then proposed the idea to the Minister of Education and King Chulalongkorn, and later it was mandated as *Khronkhan Sueksa 2445* (the 1902 Education Plan).

Later the government decided that it was not appropriate to follow a British system and instead began to learn more about Japan's eclectic system by sending government representatives to study the Japanese way of developing education. A system similar to that of Japan continued until the reign of King Rama VI. With the shift to a constitutional monarchy in 1932, a new education plan was adopted which

then underwent a number of modifications over time, but none of these plans were fully implemented because of a lack of funds. After Thailand became a member of the United Nations in 1946, new education plans were adopted, but each plan was controversial and many citizens found them confusing (Sukich 1970). Later the National Education Plan 1951 was introduced. It was the first national education plan which referred to adult education and defined it. According to the plan, the educational system included preschool education, primary education (compulsory), secondary education, higher education, vocational education, and adult education. Adult education was defined as a type of education that set the study time flexibly. It was provided for adults who had no chance to study during their school-age period, or who needed more education to improve their occupational skills, or who were unable to study in the formal school system. The plan was in effect until 1959 (see Chap. 8).

20.2 The National University Council

The roots of the National Education Council (NEC) date back to 1956 when the government of Field Marshall Pibulsonggram (Plaek Khittsangka) established the National University Council (NUC) on January 11, 1956, with the purpose to develop Thai higher education institutions by producing competent and highly professional graduates. At that time the existing five universities were under the jurisdiction of different agencies. For example, Chulalongkorn University was attached to the Ministry of Education, Thammasat University was an independent open university, Silpakorn University belonged to the Department of Fine Arts, Kasetsart University was under the Ministry of Agriculture, and the University of Medical Sciences was under the Ministry of Public Health.

The new University Council was comprised of the prime minister as the chairman and the minister of education as the vice chairman, including the ministers of public health, agriculture, culture, and finance, the five universities' presidents, the Ministry of Education's permanent secretary, 12 specialists/experts, and Professor Dr. Kamhaeng Palangkul, the first Secretary-General who served as the secretary of the NUC. The University Council performed administrative duties for all universities under the unity of command of the prime minister.

20.3 The National Education Council (NEC)

When Field Marshall Sarit Thanarat became prime minister in 1957, he had an idea to reform the bureaucratic system. Therefore, several advisory units such as the External Affairs Department, the National Economic Development Board (NEDB), the National Research Council, and the Budget Bureau were established as "think tanks" in the Prime Minister's Office to give advice to the prime minister. Related

to education, the National Education Council was established to serve in the same role as the “chief of staff” of the military, giving advice regarding education to the prime minister. Field Marshall Sarit placed much importance on these advisory organizations, and he was given considerable credit for this visionary initiative (Thak 2007). Most importantly he chose only the best and brightest persons to serve as heads of these strategic organizations. The National Education Council was established on February 14, 1959, and the duties and responsibilities of the National University Council were transferred to be part of the NEC and the NUC was dissolved (Sanghirun 1984). The NEC was comprised of the prime minister as the chairman, deputy prime minister as the vice chairman, universities’ presidents, director of the Budget Bureau, and selected qualified persons, and the secretary-general of the NEC served as the secretary. Furthermore, the ministers of finance, agriculture, interior, education, and public health were also appointed as advisors to the council.

The main functions of the NEC were to formulate and revise the national education plan; identify educational problems and propose solutions; consider the universities’ budgets; search for financial support and scholarships; propose the establishment, dissolution, and unification of universities and faculties; and approve the universities’ curricula.

The primary goal of the establishment of the National Education Council was to use this new body as the “brain” for the development of education of the country according to Field Marshall Sarit Thanarat’s speech at the opening ceremony of the council (Pot 2012). At the inauguration ceremony and the first meeting of the National Education Council on September 8, 1959, Field Marshall Sarit stressed his strong intention to grant very great importance to education, and he expressed his high expectations for the National Education Council. He stressed that he designated the National Education Council to be a great council, both quantitatively and qualitatively. The council was comprised of 89 members, 27 of whom had graduated with a doctoral degree and 19 with a master’s. Most of all, the council had the great responsibility of developing a system of higher education to produce competent people. The first Secretary-General of the National Education Council was Professor Dr. Kamhaeng Palangkul, a former Cambridge professor whom Sarit had met in London.

Major activities of the National Education Council were the formulation of the 1960 National Education Plan, the first and the second National Education Development Plans, including the establishment of the university entrance examination system. Working with prominent Thai scholars, the council also facilitated the establishment of universities in the regions outside Bangkok, such as Chiang Mai University in the north, Khon Kaen University in the northeast, and Prince of Songkhla University in the south. Furthermore, the establishment of the Asian Institute of Technology (AIT), one of the world’s most famous international universities, in Thailand in 1959, evolving from the SEATO Graduate School of Engineering, was another major contribution of the National Education Council (see Chap. 9). The Thai government allocated an amount of budget annually to support AIT through NEC which acted as an agency that proposed the budget. NEC’s

representative was also appointed as the university's board member. In addition, the NEC coordinated the granting of government scholarships to AIT students, whether Thai or international students.

One serious weakness of the National Education Council was its scope of work which was initially confined only to higher education, not including other levels of education. Later Dr. Kamhaeng Palangkul argued that the National Education Council should play an important role in formulating educational plans, policies, and research projects so it was transformed into the Office of the National Education Commission (ONEC) in 1972.

20.4 The Office of the National Education Commission (ONEC)

In 1972, the government council installed by a military coup established the Ministry of University Affairs (MUA) and the Private Education Commission. At the same time, the Office of the National Education Council was changed into the Office of the National Education Commission with its new mission being to develop policies and plans for education at *all levels*, since the administration of higher education was transferred to the new MUA. The National Education Commission Act which was promulgated in 1978 stipulated that the Commission's members include 17 persons only, with the deputy prime minister, assigned by the prime minister, as its chairman. To give it independence, ONEC was not under the Ministry of Education but part of the Office of the Prime Minister (see Fig. 20.1).

In 1992 the makeup of the National Education Commission was restructured to consist of 12 representatives from related agencies and 12 qualified persons appointed by the cabinet with the prime minister or authorized deputy prime minister as the chairman. The vital role of the National Education Commission was to implement the education reform initiated following the new openness made possible by the students' uprising on October 14, 1973, and the overthrow of the military government (Achara 1973; Prizzia and Narong 1974).

On June 25, 1974, the Cabinet appointed the Committee for Paving the Foundation for Education Reform with Professor Dr. Sippanondha Ketudat, the then Deputy Secretary-General, as the chairman (Sippanondha et al. 1975) (see Fig. 20.2). Although the proposal for education reform was not fully implemented, the Education Reform Committee was established on May 20, 1975, with the minister of education as the chairman and Professor Dr. Sippanondha, the then Secretary-General of ONEC, as the secretary (OEC 2006). Some parts of the proposal were implemented such as the formulation of the 1977 National Education Plan and the transfer of primary education back to the Ministry of Education and the establishment of the Office of the National Primary Education Commission (ONPEC).

Also ONEC continued its mission to formulate national education plans, and it prepared the 1992 National Education Plan, which was a 10-year long-term plan



Fig. 20.1 The Office of the National Education Commission, Office of the Prime Minister (Photo courtesy of Dr. Waraiporn Sangnapaboworn)

(1992–2001). However, the formulation of policies and plans did not guarantee the successful implementation if, as happened in numerous cases, the related organizations did not comply with them. While some policies such as the change from a 7-3-2 to a 6-3-3 education system were completed successfully, others such as the change of teaching and learning pedagogy and the decentralization of power of education administration from the ministry were largely ignored.

Perhaps the great success of the National Education Commission was during the late 1990s when ONEC Secretary-General Dr. Rung Kaewdang took a leading role in educational policy discussions during the enactment of the 1997 Constitution, which mandated that there must be a national education law and the reform of education (Constitution 1997; Klein 1998; Thawan 2002; ONEC 2001). ONEC also stepped forward to lead the effort to formulate the 1999 National Education Act which became the first educational law of its kind that paved the way for the most comprehensive reform of education of the country ever undertaken (ONEC 1999, 2002) (see Chap. 21). The National Education Act was aimed at providing free education of high quality to all people and mobilizing resources and participation from

Fig. 20.2 Dr. Sippanondha Ketudat, first Secretary-General of ONEC (Photo courtesy of Dr. Waraiporn Sangnapaboworn)



all parts of society in providing education in order to build a lifelong learning society. A major motto of the reform was “education for all” and “all for education.” *Lifelong education* consisting of formal, nonformal, and informal education was given high importance, and teachers were encouraged to teach less but motivate students to learn more, through a *student-centered approach*, for the development of all aspects of students in a holistic way so that they can realize their full potential (Fry 2002). The 1999 National Education Act was promulgated on August 19, 1999.

Moreover, the Office of the National Education Commission was the host organization that established the Office of the National Education Standards and Quality Assessment (ONESQA) to advance the education quality assurance system as stipulated in Chap. 6 of the National Education Act.

The Office of the National Education Commission’s leading role in education reform was widely recognized by educators, teachers, and the mass media when it conducted several major research projects to support education reform and held various seminars to inform the reform issues and communicate the contents of education reform to the public through all kinds of mass media and education reform networks (see ONEC 2001). Many research papers were published and distributed to all education-related agencies. Those ONEC publications are also available currently at the OEC Web site (2016a, b), which allows all stakeholders and interested people in general to have more access to these valuable knowledge sources that informed the 1999 education reform. The most cited publications are those concerned with education reform in terms of both concepts and practice, such as:

- *School-Based Management: Thai Ways and Methods* (Boonmee 2002)
- *Synthesis Report: From Crisis to Opportunity, the Challenges of Education Reform in Thailand* (Fry 2002)

- *Learning Reform: A Learner – Centered Approach*, a publication on learning reform indispensable to all teachers as well as those responsible for educational provision

Regarding the Asian Institute of Technology (AIT), following the reorganization of the Ministry of Education in 2003, with the Commission of Higher Education integrated into the Ministry's organizational structure, Dr. Rung Kaewdang, the then Secretary-General of ONEC, considered that AIT, as one of the higher education institutes financially supported by the Thai government, should be under the supervision of the Commission of Higher Education. ONEC then proposed this idea to the cabinet meeting and it was approved accordingly. Therefore, currently OHEC is responsible for the support of AIT.

20.5 The OEC Era, After 2003

Based on the 1999 National Education Act, the Ministry of Education Act was promulgated in 2003. According to the Ministry of Education Act, there are five major organizations in the ministry, Office of the Permanent Secretary, Office of the Education Council, Office of the Basic Education Commission, Office of the Vocational Education Commission, and the Commission on Higher Education.

The Office of the Education Council performs the following duties and responsibilities:

1. Propose the national education plan which integrates religion, art, culture, and sports with education at all levels.
2. Propose the education policies, plans, and standards in support of the National Education Plan.
3. Propose the policies and plan to increase educational resources.
4. Evaluate the performance of education operations according to the National Education Plan.
5. Propose opinions or advice on matters concerning the laws and regulations issued according to the National Education Act.

In addition to these duties, the Office of the Education Council also has responsibility to give opinions or advice to the Minister of Education or the cabinet and perform other duties as stipulated by law or entrusted by the Minister of Education (ONEC 1999, 2002).

Section 33 of the Ministry of Education Act provided that the Education Council consists of 59 council members as follows:

1. Minister of Education as the Chairman
2. 16 members (ex officio), namely, the Permanent Secretary of the Ministry of Tourism and Sports, Permanent Secretary of the Ministry of Social Development and Human Security, Permanent Secretary of the Ministry of Information and Communication Technology, Permanent Secretary of the Ministry of Interior,

Permanent Secretary of the Ministry of Labor, Permanent Secretary of the Ministry of Culture, Permanent Secretary of the Ministry of Science and Technology, Permanent Secretary of the Ministry of Education, Secretary-General of the Council of State, Secretary-General of the Basic Education Commission, Secretary-General of the Vocational Education Commission, Secretary-General of the Higher Education Commission, Secretary-General of the National Economic and Social Development Board, Director of the Budget Bureau, Secretary-General of the Teachers Council, and Director of the Office of National Education Standards and Quality Assurance

3. Two representatives from private organizations
4. Two representatives from local administrative organizations
5. Two representatives from professional organizations
6. Two representatives from Buddhist organizations
7. One representative from the Central Islamic Committee of Thailand
8. Two representatives from other religious organizations
9. 30 knowledgeable resource persons appointed from highly professional and recognized experts in early childhood education, basic education, higher education, vocational education, private education, education for special professionals, special education, nonformal and informal education, education administration, educational zone administration, religions, culture, wisdom, policy and planning, standards and quality assurance law, economy, finance and budgeting, science and technology, communication, natural resource and environment, agriculture and cooperatives, social development, industry, politics and public administration, mass communication, educational technology, business, services, private organizations, sports, youth affairs, boy scouts, girl guides, either or all of these combined together
10. Secretary-General of the Office of the Education Council as the secretary of the Education Council

After the promulgation of the National Education Act in 1999, ONEC still actively performed its duties as a think tank to facilitate the implementation of education reform according to the National Education Act, especially as the mentor of ONESQA to assure the effectiveness of the first round of the quality assessment (2001–2005). Several controversial issues such as the division and number of the Education Service Areas (ESA) were settled at OEC meetings. It also revises the National Education Plan, formulates the national education standards, and provides the framework of the 5-year national education development plan in line with the National Economic and Social Development Plan so that the implementing agencies can utilize it as a guideline in providing education.

After the first decade of education reform, OEC took a leading role again in evaluating the success and weakness of the implementation of education reform. To advance the tasks that remained undone, it was entrusted by the Minister of Education to formulate a policy called the Second Decade of Education Reform (2009–2018) (OEC 2009). The policy stressed the need for improving learning,

teachers, schools, learning sources, and management, with the aim to enhance educational opportunities and raise the quality of education.

It is important to address how the work of the OEC and the Ministry's Bureau of Policy and Strategy is different or possibly overlaps. Actually this bureau at the ministry serves as the policy and planning arm of the Office of the Permanent Secretary which only oversees private education, nonformal education, and special projects. The Education Council is chaired by the Minister of Education, while other commissions have knowledgeable persons as their chairpersons. Each of these four commissions has their own policy and planning office.

The OEC formulates an overall education policy such as the Second Decade of Education Reform (OEC 2009), the National Education Plan, and the National Education Development Plan, while other commissions have their own policy and planning bureaus to perform duties within the scope of their responsibility which focus on the implementation according to OEC's proposed policy and plans. OEC also evaluates the overall performance of the education operation.

To be an efficient think tank, the OEC needs to have sufficient and updated data and information. However, concerning education statistics, there seems to be a complex issue of who is collecting what statistics. At present, there are several organizations that collect educational statistics. For example, the Ministry of Education (MOE), the National Statistics Office (NSO), and the National Economic and Social Development Board (NESDB) have, for example, their own data for enrollment ratios. The statistics from these organizations may be the same or different, depending on their purposes and how the data were collected and utilized. The OEC (2015) also compiles its own report on educational statistics for Thailand which includes not only the statistics of the Ministry of Education but also other organizations that operate education such as local administrative organizations (municipalities and LAOs), the Ministry of Defense, and the Ministry of Public Health. An example of the extremely valuable statistical work of the OEC is a report prepared by Pattama Kampasri. It includes detailed disaggregated provincial level data which makes possible the rigorous study of regional disparities (OEC 2014) (see Chap. 14).

The current system is flawed resulting in waste and inconsistencies. One of the big frustrations and challenges facing many contributors to this volume is the problem of inconsistent data. For example, OBEC and UNESCO/UNICEF have slightly varying concepts of the age groups for primary and secondary education which influences the calculation of enrollment ratios. Some Thai agencies may use the OBEC criteria, while others may follow the UN metrics, resulting in considerable confusion and inconsistency.

There should be only one national education statistics bureau within the Ministry of Education, no matter what organization it may belong to, which collects educational data from all agencies concerned so as to eradicate the duplication, reduce the overlap resulting in wasted resources, and increase the reliability and consistency of the statistics. This bureau should integrate and synthesize information with NSO and NESDB in order to increase the efficiency of information sharing. It needs also to utilize valuable data from ONESQA and NIETS. Thus, the movement to establish a unified national education accounting system is to be applauded (NEA 2013). The

creation of a kind of single educational NSO synthesizing such a system of integrated statistical indicators could help solve this problem and reduce redundancy and confusion.

20.6 Conclusion: The Future of the OEC

As in the distant past, the OEC is comprised of a large number of members (59) which makes it a great council and educational brain as expected by its original founder, Field Marshall Sarit Thanarat. To include knowledgeable people from various organizations in the council could be OEC's strength for mobilizing opinions and perspectives from all parts of society and designing careful policies that are responsive to the needs of all related implementing units for the overall development of quality education. However, such a huge council also has inherent weaknesses and is naturally unwieldy. At the meetings which are held every 2 months on average, it is not easy to approve a proposal quickly because most council members want to express their opinions and to ensure that the proposal is revised and improved by including their suggestions. Therefore, it is time consuming for making any policy. Regarding this matter, Dr. Puey Ungpakorn (1987) (Sulak 2014), one of Thailand's late leading scholars and economists, and as a member of the council years ago, used to criticize that the Education Council should speak less and do more. This critique is unfortunately valid as many comment that the meetings of OEC tend to be a series of intellectual exercises with no real impact on implementation. Another weakness of OEC is the disruption from political intervention especially in the appointment of the organization's heads, the council members, and other high-ranking officials. It also happened often that the meeting of the Education Council could not take place due to frequent cabinet reshuffles or a coup d'état resulting in a totally new government.

As indicated in this chapter in earlier years under the dynamic leadership of individuals such as Dr. Sippanonha Ketudat and Dr. Rung Kaewdang, ONEC had considerable policy impact as reflected its role in formulating the progressive 1999 NEA and creating organizations such as ONESQA and the OER. However, in the recent decade plus as OEC, the organization's influence has waned and it has not broken any new ground. To be influential it must have highly regarded (by both the public and MOE) and outstanding leadership. With the appointment of the Super Board in 2014 to oversee a new round of education reform, the Secretary-General of OEC was not even appointed to this important board, and the secretariat for the board was the NESDB with TDRI being the major consulting agency. This was a "real slap in the face of the OEC" confirming rather dramatically its waning influence.

Thus, some crucial questions related to the future of the OEC are the following:

- Where should the OEC be located? Should it return to be under the Office of the Prime Minister as was the case prior to 2003 in the "good old days?" Or should

it become an independent public organization (a kind of educational TDRI) able to attract top quality policy researchers? To be influential, the organization must have truly outstanding and capable leadership and staff.

- What is the fundamental nature of the policy process? Should it be top-down or bottom-up? Is it a journey or a blueprint?
- What is OEC's role given that each key commission of the MOE has its own policy and planning office? Should its role be to identify neglected policy issues and focus on fostering the "all for education" goal of the NEA and enhancing the role of alternative education, including greater involvement of the private sector and NGOs in education?

Compared with the earlier National Education Council and ONEC, the current Office of the Education Council may have much less freedom and autonomy since it is now an integral part of the Ministry of Education. The potential strength of this organization lies in its doing outstanding educational research, evidence-based policy formulation, plan development, and statistics integration, which makes it different from other educational organizations. Therefore, to ensure its sustainable future, it is crucial to have dynamic respected leadership and to recruit, develop, and retain outstanding research personnel. Only then can it become a smart sustainable organization and become a valuable educational "brain" or think tank developing visionary plans/reforms and informing educational policy.

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Chapter 21

The Evolution of Education Reform in Thailand



Waraiporn Sangnapaboworn

Abstract This chapter focuses on the evolution of Thai education reform in three major phases (with a special focus on the reform associated with the National Education Act of 1999), its actual implementation, success and failure, and influences on issues of quality, equity, and decentralization. The first reform of Thailand's education system began during the reign of King Chulalongkorn more than 100 years ago. Education previously provided at homes, temples, and palaces was replaced by a formal school system. The second major reform occurred after the "student revolution" of 1973. There was then a strong demand from society to reform education so as to promote people's equal opportunity and freedom of speech and thought. Unfortunately, the education reform proposal was rejected by the rightists for fear of communist influence on the proposal. However, some legacies of the reform became reality such as a new curriculum, change in the structure of education to a 6-3-3 system, and transfer of rural primary education from the MOI to the MOE. The third wave of education reform occurred after the promulgation of the 1999 National Education Act, which was aimed at expanding educational opportunity for all Thai people to have access to at least 12-year basic education without charge, raising the quality of education, and promoting student-centered and lifelong learning. However, though almost two decades have passed, it seems the reform goals are still far to reach due to the discontinuity of authority concerned and the frequent change of governments and ministers of education.

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21.1 The First Education Reform and Modernization During the Reign of King Chulalongkorn the Great (King Rama V)

The first education reform was initiated by His Majesty King Chulalongkorn the Great (1868–1910) for two main reasons, external pressure from colonial powers and the need for the reform of government. The King, who was highly respected as a great and visionary reformer, promulgated a royal policy to transform the endangered Siam into a modern nation in order to protect the land from colonization by Western powers and to retain the nation's sovereignty. The traditional types of education provided in the palace, temples, and homes were replaced by a new formal secular education system. Schools were established across the nation along with the modernization of the bureaucratic systems, military, court systems, public utilities, railway systems, and the telecommunication and transportation infrastructure. The aim of education was to prepare capable persons to serve as civil servants in the country's new bureaucratic system.

Right from the early days of his reign, King Chulalongkorn emphasized the provision of education in terms of both quantity and quality. He was not only concerned about the equality of educational opportunity but the integrated development of people through education to nurture people of quality for society as illustrated by his famous remark:

From now on all Thai subjects, ranging from my children and others in royal family to ordinary people, will be given an equal opportunity to receive education. I can assure that education in this nation will be given the first priority and I will do my best to materialize education development (Chatchaphon et al. 2012, p. 151).

This reflects the King's strong intention to lay the foundation of education system for the benefits of all people and the country. According to the royal remarks and letters, King Chulalongkorn realized the significance of education and the necessity to educate people in order to support the modernization of the country. The King envisioned that education was not only providing knowledge for people to earn a living but to develop people in all aspects including knowledge, occupation, art of living, and morality for peaceful living in society.

In 1871 King Chulalongkorn established the first school, Suankularb School in the Grand Palace, to provide education for children from the noble family and to prepare them for Mahadlek School which trained young boys to serve in the civil service system. Later he established Wat Mahannaparam School, the first school for commoners. The King did not force but motivated and advised people to send children to school. Later there were schools established by royal family members to provide education for both boys and girls. Private schools were also established by missionaries (see Chap. 3).

To systematize the modernization of the education system, King Chulalongkorn established the Ministry of Education and ordered the first Royal Ordinance on Education in 1898. The reform resulted in the expansion of school education in the

capital area and other main cities, the establishment of teachers' training schools, and a school for preparing civil servants which was subsequently developed into the first national university, called Chulalongkorn University in 1917. Girls' schools were particularly set up in metropolitan areas, reflecting Siam's impartial education policy in which girls, as well as boys, were granted an equal opportunity for school education right from the very beginning.

The most noteworthy success of the first education reform was the establishment of schools in temples all over the country. The King had a policy to mobilize all resources from "home," "temple," and "school" so that Buddhist monks, parents, and community people could take part in providing education. Moreover, education for monks was strengthened so that monks could perform duties as teachers who taught the 3Rs and morality, linking the main pillars of Siamese society for the benefit of children's education.

King Chulalongkorn placed the provision of primary education up-country under the jurisdiction of the Ministry of Interior, while primary education in Bangkok was under the Ministry of Metropolitan Affairs. The Ministry of Education was responsible for education at upper levels, with parents bearing the burden of education expenses so that Ministry of Education would retain enough resources to expand education in a wider scope.

There was also an attempt to prepare a drafted curriculum to provide education at three levels, primary, secondary, and higher education, though it was not completed in King Chulalongkorn's reign, but was a starting point.

In terms of teaching media, textbooks for teaching Thai language and morality were developed, and monks were advised to teach morality for two hours per week. Realizing the importance of English language to provide access to modern knowledge and as a means for international communication, the King, who protected Siam from being colonized, encouraged students to learn English earnestly.

Regarding quality assurance, King Chulalongkorn established an examination system and a monitoring system to assess the performance of education provision. Finally, the King established the Haw Phra Samut Vajirayan, the first public library and museum as lifelong learning resources to promote informal learning among his people. Education reform during the reign of King Chulalongkorn marked an important milestone for providing education in Thailand (Wuttichai 2011, Wyatt 1969). The shift from the old to the new system according to international standards included the establishment of school buildings, textbooks, qualified teachers, regular class hours, and the system of formal administration.

The wise policy of establishing schools at temple sites enabled the Buddhist temples which were located in every community to play an even more important role in providing education thereafter (see Chap. 3). However, the rigid formalized system of education in which teachers became the sole source of knowledge caused distance between temples and schools and between knowledge and morality. Although the first education reform took place in the reign of the absolute monarchy, the resistance to change was unavoidable. Many parents refused to send their children to school because of the rumors across the kingdom that young men who had a school education would be drafted to be soldiers.

21.2 The Second Attempt at Education Reform

The so-called second attempt for education reform in Thailand occurred after the dramatic student uprising in October 1973 (Charnvit 1973; Prizzia and Narong 1974). This enormous demonstration, which started from students being arrested for distributing pamphlets calling for a constitution, led to the overthrow of the long-time military government. This inspired social awareness to participate not only in politics and administration but also in the education system that would mold the country's future generations.

In response to the demand for education reform, the government appointed the Education Reform Committee chaired by Professor Dr. Sippanondha Ketudat, one of Thailand's most famous leading scholars, to revise the whole education system and propose a plan to reform education to cope with the changing society. The Office of the National Education Commission was assigned to serve as the task force center where educators and leading scholars met to discuss and prepare the education reform plan proposal.

After the student uprising on October 14, 1973, there was a call and protest from farmers and poor people demanding equity in many areas. Among them was education reform to change the education system, curriculum, and teaching approaches. The appeal went further even calling for the dissolution of the Ministry of Education. The then Minister of Education, Kriang Keratikorn, therefore asked Sanya Thammasak, the Prime Minister, to appoint the Committee for Paving a Foundation for Education, consisting of 22 key individuals from various fields. The Committee addressed four key questions: (1) What are the characteristics of the desirable education? (2) For what aim should the state provide such desirable education? (3) Who should be given interest and benefits from the education provision of the state? (4) How will the state administer and manage such education? The committee proposed ten issues for education reform (Sippanondha 1974):

1. Changing the structure of the education system from 4:3:3:2 to 6:3:3 (see Chap. 4)
2. Moving education of all levels to be under the jurisdiction of the Ministry of Education
3. Decentralizing the power of education administration to local administrative organizations
4. Promoting private education at levels other than compulsory education
5. Amending educational laws as needed
6. Improving the teacher training system and teaching profession
7. Reforming curriculum, learning processes, and the learning system
8. Increasing the investment in education by mobilizing resources from various sources
9. Expanding educational opportunity for greater equality of access
10. Improving related systems involving education

The proposal for education reform, *Education for Life and Society*, was regarded as an attempt to create a Thai society of a new era in which importance was placed on

equality, equity, freedom, rationality, social awareness, and desirable social values (Sippanondha 1974). The aim of education was to instill in learners desirable values for living and society. The proposal for education reform was approved in the ministerial meeting on December 24, 1974, along with the establishment of the Committee for Preparing Measures in Education Reform.

However, the Ministry of Interior asked the ministerial meeting to revise its decision concerning education administration, asserting that the Ministry had already provided education based on its policy of decentralization to local administrative organizations.

During this period, in 1975 the newly elected government of M.R. Kukrit Pramoj appointed the Education Reform Committee to propose measures for reforming education according to the proposal of the Committee for Laying the Foundation for Education Reform. The Education Reform Committee, comprised of a total number of 30 scholars appointed on May 20, 1975, was chaired by Dr. Nipon Sasithorn, the Minister of Education with Dr. Sippanondha Ketudat, Secretary-General of the National Education Commission, as the secretary, and Office of the National Education Commission as the secretariat. The Education Reform Committee therefore prepared the proposal for the education reform measures and guidelines. The main issues addressed in the report of education reform were (1) the structure of education administration system and decentralization, (2) learning content and learning processes, (3) teachers and educational personnel, (4) educational equality, (5) private education, (6) mobilization of resources and investment in education, (7) utilizing mass media for education, (8) nonformal education, and (9) monitoring of education reform (ONEC 1976).

However, during the period, May 1975 to October 1976, there were changes of prime ministers and ministers of education several times, and the Office of the National Education Commission had to submit the education reform issue to the ministerial meetings for receiving approval for the continuation of the education reform project. In addition, the Office had to spend time over and over again explaining the necessity and content of education reform. After the storming of Thammasat University and related bloodshed on October 6, 1976 (Anderson 1977; Tawatchai 1979), leading to a military coup d'état, Thanin Kraivichian was appointed the Prime Minister and Dr. Pinyo Sathorn, former member of the Committee for Paving a Foundation for Education, the Minister of Education. At that time communist ideology was widely spreading in neighboring countries, and there were daily protests from students, farmers, and laborers against the government, calling for greater freedom and social justice. Therefore, there was fear that Thailand would become a communist country. Dedicated education reformers were saddened when the Education Reform Committee proposal was entirely rejected at the ministerial meeting by the Minister of Education Pinyo, who attacked the reform plan for being too radical and influenced by socialist and communist ideology. Pinyo was part of a group labeled "the Gang of Five" (Wira and Sira 1978). Later interestingly after the Thanin government itself was overthrown by another military coup on October 20, 1977, Pinyo wrote a reflective book on the principles of education, including a chapter on Thai education (1981).

Despite this abortive attempt, education reformers turned some essential issues of the proposal into practice to bring about at least a minor change in the education system some years later. For example, the revision of the curriculum in 1977 with an emphasis on the cultivation of thinking and problem-solving ability in Thai children was a part of the education reform elements outlined in the original education reform proposal.

Although the government after the coup d'état terminated the process of enforcing the education reform plan, the Office of the National Education Commission did not put aside its attempt to implement some contents of education reform by inserting them in the National Education Plan B.E. 2520 (1977) and the fourth National Education Development Plan B.E. 2520–2524 (1977–1981).

Some of the elements of education reform implemented through the National Education Plan were the change to a 6:3:3 system, which enabled the Ministry to expand education access to children in remote areas faster and in wider scope. Kindergartens in rural areas were promoted, and the new curriculum focusing on thinking ability and skill development was enacted in 1980.

Even though the decentralization of power of education administration was not implemented at all, the Office of the National Education Commission under the leadership of Dr. Sippanondha Ketudat and Dr. Rung Kaewdang conducted important research on the efficiency of primary education (Amrung et al. 1990). The result of the research indicated that primary education under the Ministry of Interior had quality problems and education was not being professionally operated by public administrators. Based on such research, the government agreed that it was necessary to transfer primary education from the Ministry of Interior back to the Ministry of Education and established the Office of the National Primary Education Commission (ONPEC) in 1978 to oversee primary education across the nation. Some of the Office's significant accomplishments were the expansion of educational opportunity for primary school students from 4 to 6 years and the school lunch program, which were initiated by Dr. Sippanondha Ketudat and Dr. Rung Kaewdang. Moreover, the school milk program and the expansion of rural kindergartens were initiated by Dr. Rung Kaewdang and well supported by Prime Minister Chuan Leekpai, who proposed this policy to the ministerial meeting, which was then formally approved (Khuen Nom... 2002). Later, there was a problem about students finishing primary education in rural areas who could not gain access to secondary schools. Therefore, Dr. Kor Sawatpanich initiated the *rongriankayaiogat* (โรงเรียนขยายโอกาส) (opportunity expanding schools), which provided much greater access to lower secondary education in rural primary schools (Thawan 2002).

21.3 Education Reform As Mandated in the 1999 National Education Act

The current education reform in Thailand is considered the third major reform, based on the enactment of the Constitution of the Kingdom of Thailand B.E. 2540 (1997) and the promulgation of the National Education Act B.E. 2542 (1999). The

latter was considered the first education law in the history of the country. Previously there were a series of educational plans, but none of them were brought into the legislative process. The ultimate goals of education reform were to form a learning society by widening the scope of education from the typical formal education within schools as the sole source of knowledge to lifelong education with diverse learning components and providers.

21.3.1 Rationale for Education Reform

21.3.1.1 Low Gross Enrollment at the Upper Secondary Level and Low Mean Years of Schooling

Despite the large-scale expansion of educational institutions and *rongrian kayai oga*t in rural primary schools, Thailand's educational achievements left much to be desired. According to a study of Office of the National Education Commission in 1996, the mean years of schooling in the population aged 25 years or higher was merely 5.3, which was very low compared to neighboring countries like Malaysia and Singapore, and problems related to access and equity persisted particularly at the upper secondary level. There were still many young children left out of the school system, especially the impoverished and disadvantaged groups (see Chaps. 12–14). Educational inequality was a persisting basic problem (Fry 2002a) (see Chap. 13).

21.3.1.2 Problems Related to the Quality of Education

In terms of the quality of education, it appeared that science and mathematics had been neglected, which resulted in the low achievement at both the primary and secondary levels (Chatree and Luecha 2016) (see Chap. 17). With respect to the Third International Mathematics and Science Study (TIMSS) conducted by the International Association for the Evaluation of Educational Achievement (IEA), Thailand's rankings were poor in both science (24th out of 26 countries) and mathematics (22nd out of 26 countries) at the primary education level. The outcomes of secondary education level were no different. The rankings indicated that teaching and learning reform was needed to improve the quality of Thai education at both the primary and secondary levels. The public intellectual, Dr. Prawase Wasi, emphasized that learning reform was at the heart of human development (1998, 2002).

21.3.1.3 Inadequacy of Teaching Professional Development

During the past few decades, the problem of the deteriorating situation of the teaching profession and the quality of teachers became one of the prime concerns in the education system of Thailand. Due to low salaries and changing social values, the

teaching profession was no longer attractive to the best and the brightest. Apart from the problems of debts and working conditions, teachers had inadequate access to new knowledge and information technology due to the lack of professional development. Many teachers never received any on-the-job training to expand their scope of knowledge and professional skills. The problem of teachers' quality was one of many causes that contributed to Thai students' poor performance shown in the academic achievement evaluations that were conducted by both domestic and international organizations.

21.3.1.4 Inefficiency of Education Administration

According to a World Bank report, Thailand increased its expenditures for education from 3.4% of the GDP in 1980 to 4.2% in 1995, which was high when compared to other countries. And yet, the enrollment ratio in secondary education was lower than other Asian countries such as Malaysia, Korea, and Indonesia where the investment in education was lower but the outcomes were much higher than Thailand. Thailand had invested heavily in education, but the low performance of students as shown by various data sources indicated that Thailand was not receiving returns for its investments. There were several factors contributing to the inefficiency of educational administration. First, the administrative process was time-consuming, and much duplication could be observed in the bureaucracy due to the highly centralized system of education administration and the hierarchical structure of the Ministry of Education. Second, a large portion of budget was spent on administrative work, which was not related to students' achievement, classroom instruction, or improving quality.

21.3.1.5 To Cope with Globalization and Competitiveness

Globalization brought along with it the advance of information technology which caused rapid changes in various aspects of people's lives and society. Inspired by Everett Reimer's (1971) *School is Dead* and Philip Coombs's (1968) *The World Crisis in Education*, Thailand's leading educators realized how technology would change the school system. The trend to implement education reform could be observed in various countries, such as the UK, China, Japan, the USA, Australia, and New Zealand.

21.3.1.6 The Movement Toward Education Reform

In 1994, Banthoon Lamsam, the progressive-minded managing director of the Thai Farmers Bank (currently known as the Kasikorn Bank), undertook an initiative to launch an ambitious campaign entitled, "Thai Education in the Age of Globalization" in commemoration of the Bank's 50th anniversary of its establishment. Thailand's leading education scholars such as Dr. Prawase Wasi, Dr. Sippanondha Kedutat,

Professor Summon Amornvivat, Dr. Kowit Varapipatana, Dr. Rung Kaewdang, Dr. Kasama Varavan Na Ayudhaya, Dr. Amornvit Nakorntap, and others were invited to be on the task force committee for this mission (see Appendix II). After several seminars and meetings, the committee issued “the proposal for education reform in Thailand,” which clearly stated that education reform was a must for the survival of Thailand in an increasingly competitive world (Sippanondha 1996). The education reform must aim at transforming Thai society into a learning society. The Bank’s campaign had an important impact on Thai education and drew the attention of educators and teachers all over the country. At the solemn closing ceremony of the project, a large number of leading educators and scholars were invited to join in the declaration of their united determination to reform the education system of the country. The Constitution of the Kingdom of Thailand B.E. 2540 (1997) (King Prajadhipok’s Institute) mandated that an education reform law be promulgated and at the same time the so-called “tom yum kung” financial crisis that occurred in 1997 led to a call for education reform and greater morality.

21.4 The Process of Enactment of the National Education Act and Its Accomplishments

To ensure the success of education reform, Dr. Rung Kaewdang, Secretary-General of ONEC, initiated the following strategies (Rung 1999).

21.4.1 Building and Sharing of Knowledge

The Office of the National Education Commission, which was responsible for the formulation of the draft for the National Education Act, played a significant role in building a body of knowledge through conducting research, publishing research reports, and distributing them to educational institutions, public libraries, and organizations concerned across the country. Based on 44 themes of research, the National Education Bill was drafted.

21.4.2 Public Hearings and Consultation

Before and after the National Education Act was promulgated, the Office of the National Education Commission in collaboration with organizations concerned held several seminars to provide platforms for teachers, researchers, and other professional groups to learn about the necessity and progress of education reform. The seminars mostly coincided with a public hearing or consultation. Sometimes they

were followed by a poll survey to reach an agreement if there were some controversial issues. Seminars for important topics were usually attended by distinguished scholars and leading figures in education and politics. On many occasions, the seminars were broadcast nationwide through radio and television. Focus groups with key stakeholders were held in various parts of the country to give voice to those at the local level. The editor of this volume conducted a focus group in the Deep South as part of this process.

21.4.3 Public Relations

Realizing the importance and influence of mass media in carrying messages of education reform to the larger population, the Office of the National Education Commission initiated several television and radio programs to report the necessity and progress of education reform.

The most satisfactory outcome from the public relations strategy was the paradigm shift among mass media agents. By engaging in these activities, journalists, announcers, reporters, and programmers became knowledgeable about education reform and became active agents in spreading the knowledge to diverse audiences through various channels and mechanisms.

21.4.4 Empowerment of Education Reform Networks

To communicate to the people efficiently and nationwide and involve all segments of society to support the reform, the Office of the National Education Commission grouped certain professionals from all walks of life to form synergic networks and encouraged communication among them by inviting them to seminars. Research reports and policy papers were directly disseminated to members of these networks. Some of the prominent networks were Teachers' Network, Education Journalists' Network, Parents' Network, Students' Network, Education Politicians' Network, Education Administrators' Network, Enterprises' Network, Religious Institutions' Network, Nongovernment Organizations' Network, Local Administration Organizations' Network, and Thai Wisdom Teachers' Network. These people were kept informed of the progress of education reform policy and became active agents in supporting ONEC in the implementation of education reform.

21.4.5 Learning from Best Practices

This strategy was aimed at creating a learning network among teachers recognized for implementing best practices for each subject. To familiarize Thai teachers with this strategy, Dr. Rung Kaewdang borrowed the word “Lotus above Water” from Buddhism. Lord Buddha divided his learners into four categories by comparing them with the lotus at different levels in the water. The lotus emerging above water would blossom ahead of those under the water, which meant it was more effective to promote those teachers who were ready to learn and had positive attitudes toward the new changes. With this concept, the Office of the National Education Commission accordingly searched for teachers whose teaching performance had been recognized as using an effective child-centered approach and rewarded them as “master teachers.” Upon being awarded, each of them was required to conduct research on the development of a teaching-learning approach and form a network of at least 30 teachers so that they would share their knowledge by learning from each other through the group activities. Similar awards were also given to other groups demonstrating best practices such as “national teachers,” “leading principals,” and “Thai wisdom teachers” (ONEC 2001).

21.5 The National Education Act B.E. 2542 (1999)

The National Education Act B.E. 2542 was promulgated on August 19, 1999, to serve as the first education law of its kind in the history of Thailand’s education development. The Act became effective on August 20, 1999, and the implementation of education reform according to the Act has begun since then. Essential points of the National Education Act 1999 could be summarized as follows (please see details in the 1999 National Education Act and its revision in 2002):

- Chapter 1. General Provisions: Objectives and Principles.
- Chapter 2. Educational Rights and Duties.
- Chapter 3. Educational System.
- Chapter 4. National Education Guidelines.
- Chapter 5. Education Administration and Management.
- Chapter 6. Education Standards and Quality Assurance.
- Chapter 7. Teachers, Faculty, and Educational Personnel.
- Chapter 8. Resources and Investment for Education.
- Chapter 9. Technology for Education.

21.5.1 Proposal for the Implementation of Education Reform by the Office of Education Reform (OER)

According to the National Education Act, an Office of the Education Reform Committee was to be established in order to propose the enactment of related laws. The Education Reform Committee was comprised of nine members from various fields such as representatives from the Ministry of Education, the Budget Bureau, Office of the Council of State, religious organizations, and a number of knowledgeable persons. The Education Reform Committee was appointed by the Cabinet meeting to serve a three-year term as provided by the National Education Act.

Within three years of its term beginning in 1999–2000, the Education Reform Committee had proposed guidelines for the enactment of 44 related laws, among which four of them, the Teachers' Act, the Teachers' Council Act, the Ministry of Education Administration Act, and the University Personnel Management Act, were required to be given a priority. In addition to these laws, the Education Reform Committee proposed the action plan for the implementation of education reform according to the prescriptions in each chapter of the National Education Act (Office of Education Reform 2000). No matter how efficiently they might work out, due to personnel and time constraints, the Education Reform Committee could only conduct research on the topics deemed necessary, hold seminars for public hearings, and submit proposal reports to the Ministry of Education as well as other concerned organizations.

The Office of Education Reform (OER) had to struggle hard to advance the reform forward since those who were affected by the reform turned out to be on opposite side with the support from the Minister of Education. As provided by law and the committee members having high profiles, the OER could complete its tasks within three years, though not so smoothly. However, a turning point occurred when Professor Dr. Wichit Srisa-an, a well-known educator and the Chairman of the Education Reform Committee, suddenly resigned to join the Democrat Party in the 2001 general election.

In a seminar to mark the close of Office of Education Reform, Professor Kasem Wattanachai stated in his speech that OER had accomplished much for the education reform of the country. Although the work might not be recognized by some government officials, in the future people will realize and appreciate the value of work that OER had contributed to the nation. During its three years of existence, Dr. Chuachan Chongsatitayoo provided able leadership for the OER (see Appendix II).

21.5.2 Implementation of Education Reform Based on the 1999 National Education Act

To comply with the law, the Office of the Education Council and other related organizations of the Ministry of Education have implemented essential elements of education reform to some extent. For instance, the Office of the Basic Education

Commission oversaw the enactment of the Compulsory Education Act, which extended compulsory education from 6 to 9 years. The Office of the Education Council, in the meantime, was responsible for the enactment of related laws such as the education provision to allow entrepreneurs and families to implement education reform. Thanks to the National Education Act, the law concerning the provision of facilities for disabled persons was also promulgated to facilitate disabled students in learning with other ordinary students at schools within the more comfortable and convenient environment. Above all, the OEC also worked on the establishment of Education Service Areas and the Office for the National Education Standards and Quality Assessment (ONESQA) (see Chap. 24).

21.6 Political Changes and Education Reform During 2000–2002

The general election of January 2001 brought another page in the history of Thai politics. The Thai Rak Thai Party was elected with overwhelming votes, holding 295 out of 500 seats in the House of Representatives. Such a majority had never occurred before. The decisive victory enabled the Thai Rak Thai Party to form the new government, while the former government led by the Democrat Party became the opposition party. Pol. Lt. Col. Thaksin Shinawatra became the 23rd Prime Minister of Thailand (February 9, 2001–September 19, 2006). With political stability on the horizon, there was hope for the bright future of Thailand's economic and social development, especially the sustainability of education reform.

In the official government policy declared to the National Assembly, the Thai Rak Thai Party stated clearly that the government would put every effort to reform education according to the 1999 National Education Act. However, education policy was not given a priority when compared to the three most populist policies, especially the so-called “30 baht curing every illness” health insurance program, the allocation of a one million baht fund for every village, and the three-year suspension of farmers' debts.

Initially Prime Minister Thaksin appointed Professor Dr. Kasem Wattanachai, M.D., former president of Chiang Mai University and Permanent Secretary of Ministry of University Affairs, as the Minister of Education. Dr. Kasem was one of the educators who had an important role in the process of enacting the National Education Act and had a good reputation as an honest, gentle, clean, and well-rounded scholar (see Appendix II). Therefore, the appointment of Dr. Kasem was acknowledged as the best choice the government could ever have, and he was highly welcomed by all education reform supporters.

As the Minister of Education, Dr. Kasem Wattanachai had tried very hard to convince high-ranking officials in the Ministry to advance the education reform. At a meeting held in Chiang Mai in early 2001, Dr. Kasem formally accepted the proposal of education reform plan from the Education Reform Committee. However,

his decision was strongly opposed by high-ranking officials who disagreed with the proposal guidelines, especially the organizational structure of the new Ministry of Education. A group of high-ranking officials even lobbied with the Deputy Prime Minister to reexamine the decision of the Minister of Education. In the middle of April 2001, Dr. Kasem Wannachai declared his resignation from the position after serving for only three months.

After the resignation of Dr. Kasem, the Prime Minister himself temporarily acted as the Minister of Education for three months, during which he rarely came to the Ministry due to his heavy schedule.

Thereafter, Suvit Khunkitti, who was then the Deputy Prime Minister overseeing the Ministry of Education, was appointed the Minister of Education. Suvit made his standpoint clear to all that he himself disagreed with the direction of education reform set by the Education Reform Committee, especially the system of professional teachers' licenses, the method of external evaluation, and the reorganization of the Department of Non-formal Education. Supported by the Minister of Education, the resistance movement grew further with the most severe allegation being that the education reform plan was "a copy" of models from other countries and not suitable for the Thai context.

As the situation was getting worse, the Democrat Party, as the opposition party filed a lawsuit with the National Committee for Counter-Corruption, accused the Minister of Education of intentionally violating the National Education Act by delaying the process of education reform. After the investigation, the majority of the National Committee for Counter-Corruption ruled that the Minister was in fact guilty. However, when the case was submitted to the Constitution Court for the final verdict, the Constitution Court Committee judged that the Minister was not guilty. Actually, Suvit was one of the most powerful politicians in the Cabinet. Had he exercised his leadership in fostering the mechanism of education reform in a constructive manner, the nation would have owed him a great deal.

21.7 Resistance to the Education Reform

The reduction of the number of departments in the ministry from 14 to only four offices was a radical and undesirable change for many officials who felt threatened by this structural reform. The dissolution of their organization meant the loss of the organization's identity, culture, and their authority. For those middle administrators, their prospective top position would vanish along with the dissolution of the organization. Therefore, officials in almost every organization struggled to maintain the status quo of their organization or to prolong it until they retired. The following were some of the controversial issues that provided support for the resistance to change among the ministry's officials and teachers' organizations (ONEC 2002).

21.7.1 Number of Education Service Areas (ESAs)

According to the National Education Act, the Ministry of Education shall decentralize the power of education administration to Education Service Areas, the number of which should be in accordance with the geographical environment, the number of population, schools, and other necessary factors.

There were various proposals related to the number of Education Service Areas. For example, the Office of Education Reform (OER) suggested that there should be 295 Education Service Areas in order to foster the decentralization and thoroughly oversee education in rural areas. The Ministry, however, argued that the number of 295 areas was too diverse, budget consuming, and difficult to monitor and proposed the number of 76 areas in accordance with the number of provinces in which Provincial Offices for Education, Religion, and Culture, Provincial Offices of Primary Education, and Provincial Offices of Secondary Education already existed.

Meanwhile, the education administrators at the provincial level such as directors of Provincial Offices for Education, Religion, and Culture, directors of Provincial Offices of Primary Education, and directors of Provincial Offices of Secondary Education agreed with the Education Reform Committee since the number of 295 areas would be sufficient to assure the security of their positions in the future. With 295 areas, all of them would probably be assigned to one of the areas, and their status as directors would be secured.

After conducting its own survey, the Ministry of Education proposed the alternative number of 145 areas. However, when the opposition from the provincial education administrators grew stronger, the Ministry agreed to reconsider its proposal. In the final survey, the Ministry adopted the more scientific method called the geographical information system (GIS) and came up with the number of 175. Eventually, an agreement was reached. Minister Pongpol Adireksarn, with the recommendations by the National Education Commission, issued the Ministerial Regulation for the establishment of 175 Education Service Areas.

21.7.2 Office of the Teachers' Commission

The Office of the Teachers' Commission (OTC) was responsible for teacher personnel management particularly in regard to salary increases, promotion to higher positions, and legislative affairs concerning the discipline of teachers. The Office claimed that the development of the teaching profession is the most important task of education reform. Besides, there were more than 600,000 teachers all over the country for the Office to look after. Thus, the Office should not be dissolved or designated as a part of Office of the Permanent Secretary. Instead, it should remain as an independent central organization for maintaining the standards of teachers across the country.

21.7.3 The Teachers' Council (Khurusapha)

The Teachers' Council formerly performed its functions in providing welfare for teachers such as medical services, housing, lodging, and motorcycle purchasing. According to the National Education Act, an organization must be established to perform duties related to the establishment of ethical standards for teachers, issuing and withdrawal of licenses, overseeing the maintenance of professional standards and ethics, and developing the professional standards for teachers and educational administrators. Despite the Education Reform Committee's proposal to establish a new independent organization, the Teachers' Council asserted that it had sufficient capacity to perform the new functions while continuing the existing provision of welfare services for teachers.

21.7.4 The Vocational Education Department

The Vocational Education Department demanded that it should not be under the Office of the Basic Education Commission but exist as another major office in the Ministry since vocational education is important for the development of agriculture and industry of the country. Most of all, the characteristics of vocational education were different from basic education. The designation of Education Service Areas was also different from vocational education service areas. Not all Education Service Areas had vocational schools. Further, the Department did not believe that the Education Service Areas would have adequate capacity to manage vocational education efficiently. Based on the research conducted by ONEC and the Vocational Education Department and with a strong support from many vocational educators and entrepreneurs, it was eventually agreed that the Vocational Education Department would be reestablished as the Office of the Vocational Education Commission, one of the major organizations in the newly restructured Ministry of Education.

21.7.5 Reform As a Threat to Teachers, Supervisors, and Teachers' Organizations

A majority of teachers were worried about the license system and performance evaluation. In many schools, teachers had to stay after class hours to prepare documents used as an evidence of their performance. Some teachers abused the student-centered approach by giving many assignments to students and having them search for knowledge by themselves. Students often complained that they were

overwhelmed by homework and project-based learning assignments. Parents also complained that teachers neglected the development of students and skipped classes to prepare documents for the performance evaluation. In addition, the supervisors struggled desperately to retain their roles as school inspectors fearing that they would be replaced by the external evaluators.

Leaders of teachers' associations also worried about the future of their new positions as directors of the new Education Service Areas. There were at least three provincial positions to be dissolved, directors of the Offices of Provincial Primary Education, directors of the Offices of Provincial Secondary Education, and directors of the Offices of Provincial Education, Religion, and Culture. Moreover, the positions of heads of offices of primary education at the district levels would also be dissolved. Panic and concerns about education reform grew everywhere in the education system.

21.7.6 Department of Non-formal Education

The Department of Non-formal Education (NFE) demanded that the Department should not be dissolved but also exist as another independent organization because of its excellent performance in illiteracy eradication and the provision of education for adults and the disadvantaged. Most of all, the NFE insisted that it should not be under the Basic Education Commission since the definitions of nonformal education and basic education were fundamentally different from each other. The Department of Non-formal Education formed a supporting network of NFE officials, teachers, and students to threaten that unless the NFE was restructured as an independent major organization in the Ministry, those concerned with NFE across the country would not vote for the Democratic Party in the next general election.

21.7.7 The Autonomous Universities

The resistance to education reform could also be seen among university staff, most of whom preferred to be government officials rather than universities' employees. The focal point of concerns was the uncertainty of their working condition, fringe benefits, and validity of the performance evaluation system. The resistance was apparent in almost every university including the oldest and most prestigious universities such as Chulalongkorn University and Thammasat University (see Rattana 2015a, b) (see Chap. 10).

21.7.8 Religion, Art, and Culture

The Department of Religions, the Department of Fine Arts, and the Office of the National Culture Commission had for a long time felt that their functions were totally different in characteristics from other education-related organizations in the ministry. Compared to the departments responsible for primary education, secondary education, vocational education, and nonformal education, which enjoyed power and a large amount of budget, the three departments felt they received less importance from the Ministry of Education. Therefore, separation from MOE would be the only way that the religious and cultural tasks would become prominent and receive more public recognition.

Perhaps the most aggressive and unexpected resistance to education reform was from Buddhist monks. Leading Buddhist priests expressed their dissatisfaction with the reorganization with a Religion and Culture Commission under the proposed Ministry of Education, Religion, and Culture which could formulate policies with which Buddhist monks had to comply. As the Commission would consist of representatives from Buddhism, Christianity, Islam, Hinduism, and Sikhism, the Buddhist monks felt uneasy to be under the guidance of representatives from other religions. They were afraid that the Commission might somehow weaken Buddhism. The monks insisted that since Thailand is a Buddhist country where over 95% of the population were Buddhists, it was logically reasonable that Buddhism should be regarded as the national religion and Buddhist monks should be self-governing. The Education Reform Committee argued that under the constitution, every religion should be equally respected and that the Thai people have equal right and freedom to believe in any religion of their choice. Further, the authority of the Religion and Culture Commission would be limited to education-related policies only, and the Commission would not interfere with the management of the temples' religious properties and functions. The movement of Buddhist monks and their civilian followers in resisting the establishment of the Religious and Culture Commission expanded wider and wider. They accused the Education Reform Committee and its education reform alliances of copying an education reform model from other countries without taking into consideration its suitability to the Thai cultural context. High-ranking monks and followers aggressively criticized education reformers and repeated the accusation through radio broadcasts every night. Leaders of the resistance group demanded that the government establish an Office of National Buddhism as an independent organization under the jurisdiction of the Prime Minister's Office.

In conclusion, it was the government officials and monks who severely resisted change because they were directly affected by the structural aspects of the education reform. These people rose up to protect the status quo of their organizations and resisted any change that would deprive them of privileges and interests and threaten their security. The resistance to change, the economic crisis, political changes, and the bureaucratic reform were unexpected events that stymied the implementation of the National Education Act. The impact of education reform on religions was the most sensitive issue, and the resistance from Buddhist monks was an extraordinary phenomenon beyond anybody's imagination.

21.8 The Government's Policy on Bureaucratic Reform

Following the Thaksin Shinawatra government's policy on bureaucratic reform, the structure of the Ministry of Education had to be reorganized accordingly. The departments concerning religion, art, culture, and sports were separated from the Ministry of Education and reestablished in four different ministries, namely, the Ministry of Education, which included the Ministry of University Affairs and Office of the National Education Commission; the Ministry of Culture, which included the Department of Religions, Department of Fine Arts, and Office of the National Culture Commission; the Ministry of Sports and Tourism, which included the Department of Physical Education; and the Office of National Buddhism, an independent organization under the Prime Minister's Office.

The 1999 National Education Act was revised in 2002 and resulted in a fundamental reorganization of the Ministry of Education to oversee all levels and types of education through five major organizations – Office of the Permanent Secretary, Office of the Basic Education Commission, Office of the Vocational Education Commission, Office of the Higher Education Commission, and Office of the Education Council (OEC 2003).

It is noteworthy that the main reason for the revision of the 1999 National Education Act was the separation of religion and culture from education, related to the reorganization of the Ministry of Education.

21.9 Strategic Proposals for Education Reform Under the Thaksin Regime

The Thaksin administration appointed the Education Reform Committee on December 9, 2002, with Deputy Prime Minister Chaturon Chaisang as the chairman. Its authority was to formulate the direction, plans, and strategy for education reform; oversee the reform of education; coordinate and advance the reform both practically and legislatively, including follow-up, monitoring, and evaluating the operation; and report the progress to the Prime Minister regularly. To accelerate the overall aspects of education reform to advance efficiently, the Education Reform Committee appointed a nine-member subcommittee to study and propose the education reform strategy. The subcommittee finally submitted seven strategic proposals: (1) concerning curriculum and pedagogy of basic education; (2) the reform of teacher education and development; (3) the reform of vocational education and training; (4) the reform of higher education; (5) the reform of nonformal education and informal education for promoting lifelong learning; (6) the promotion of the involvement of parents, community, and the private sector in the operation of education; and (7) the reform of educational resources and investment with an emphasis on improving the operation of the student loan fund (OEC 2004a, b, c, d).

The Thaksin government in the first part of its administration had to face the accusation by the opposition party of trying to hinder the education reform, resulting in time wasted for implementing education reform. Nevertheless, some of outstanding policies initiated by the Thaksin government were Buddhism-oriented schools, ICT schools, bilingual schools, schools for the gifted, and dream schools or lab schools.

21.10 Education Reform Amid the Uncertainty of Political Situation

After the coup d'état in September 19, 2006, the government under the leadership of General Surayut Julanon (October 1, 2006–January 29, 2008) appointed Professor Dr. Wichit Srisa-an as the Minister of Education. The government emphasized the eradication of corruption, perceiving it as a crime in education. Thus, the policy of education reform was adjusted to aim at equipping students with “moral-led knowledge. It was not until near the end of this government that a general assembly of education was organized, and concerned people attended to discuss their needs related to education reform. Dr. Wichit stated that the summary report of the assembly would be given as a present for the next government.

After the general election in 2007 with the victory of the People's Power Party, Samak Sundaravej became the Prime Minister (January 29, 2008–September 9, 2008) and was soon replaced by Somchai Wongsawat (September 18, 2008–December 2, 2008). Both leaders were accused of abusing their authority and had to be ousted from power by the courts. The parliament elected Abhisit Vejjajiva to become the Prime Minister (September 16, 2011–December 9, 2013). Abhisit, as the former Minister to the Prime Minister's Office who was responsible for the enactment of the National Education Act, was expected to be an active leader in promoting the implementation of the education reform plan.

21.11 Proposals for the Second Decade of Education Reform (2009–2018)

In response to the call for the strengthening of education reform implementation in its second decade, Prime Minister Abhisit actively demonstrated his leadership by chairing the steering committee for education reform which was composed of administrators of various organizations concerned. The Prime Minister was never absent at the meeting to share the principles and matters for the reform which yielded three main policy directions: increasing opportunity for education and learning, raising educational quality, and promoting public participation. Here are some major themes from the proposals for the Second Decade of Education Reform (2009–2018).

During the past decade, Thailand has witnessed vigorous attempts at systemic reform of education provided at the national level. Evaluation of reform efforts in compliance with the 1999 National Education Act has indicated gratifying outcomes on some issues but also serious points of concern. Structural adjustment among different agencies responsible for education provision has resulted in their unification. Some offices were established such as Educational Service Areas and the Office for the National Education Standards and Quality Assessment (ONESQA). Nonetheless, there were several issues requiring urgent measures for development, improvement, and further elaboration. Notable among these points of concern were quality of learners, teachers and faculty staff, and educational personnel, efficiency of administration and management, and need for increased educational opportunities.

In his government policy statement to the parliament on December 29, 2008, Abhisit Vejjajiva, the Prime Minister of Thailand, highlighted the need for the systemic reform of education. Pursuant to the Prime Minister's directive, the Minister of Education assigned the task required of education reform in the second decade to the Office of the Education Council (OEC). At its meeting on February 5, 2009, the Education Council duly established an Ad Hoc Subcommittee for the Second Decade of Education Reform, under the chairmanship of Professor Yongyuth Yuthavong, to spearhead the successful implementation of this vital reform.

Under the aegis of the OEC, the Ad Hoc Subcommittee conducted studies and analyses of relevant documents, reports, and outcomes of reform efforts for the past nine years. Observation of the present trends also enabled the Ad Hoc Subcommittee to make sound projections for future educational development. Large-scale symposia were organized in all four of the major regions of the country as well as in the Bangkok Metropolitan Area. Based on the views and comments from these symposia, *Proposals for the Second Decade of Education Reform (2009–2018)* were formulated (OEC 2009a, b). The Ministry of Education (MOE) submitted the proposals for deliberation by the Council of Ministers, which, at its meeting on August 18, 2009, gave its formal approval.

The vision, goals, and framework of actions were as follows:

- Vision: All Thai people should have access to high-quality lifelong learning opportunities.
- Goals: By 2018, systemic reform of education and learning will be achieved, with emphases on the following three main areas of concern:
 - Developing quality standards of education and learning of Thai people
 - Improving educational and learning opportunities
 - Strengthening participation of all segments of society in educational administration and management

The framework of actions for education reform was defined as a system approach which will be used to reform education and learning by:

1. *Quality development of the new generation of Thai people*

1.1 Quality development of education and learning

1.2 Production and development of high-quality personpower endowed with knowledge, skills, and competencies

2. *Quality development of a new generation of teachers who serve as learning facilitators*
 - 2.1 Development of system for production of teachers, faculty, staff, and educational personnel
 - 2.2 Development of teachers, faculty, staff, and educational personnel
 - 2.3 Utilization of teachers, faculty, staff, and educational personnel
3. *Quality development for revitalizing educational institutions and learning sources*
4. *Quality development through adoption of new approaches and practices for educational administration and management*
 - 4.1 Decentralizing of power in administration and management to educational service areas and educational institutions
 - 4.2 Revitalizing the system of educational administration and management based on principles of good governance, justice, transparency, and accountability
 - 4.3 Revitalizing administration and management for increasing universal access to education of high quality
 - 4.4 Revitalizing administration and management system for increased participation and contribution of the general public, private sector, and all segments of society
 - 4.4.1 Strengthening the involvement of individuals, families, communities, community organizations, professional organizations, religious institutions, enterprises, and other social institutions for increased participation and contributions to education
 - 4.4.2 Increasing the role of LAOs in providing and supporting education
 - 4.5 Developing an effective system for administration and management of resources for education

Mechanisms for advancing education reform were identified as follows:

- Two committees were duly established:
 1. Policy-level Committee for the Second Decade of Education Reform was established by virtue of a regulation of the Prime Minister's Office, under the chairmanship of the Prime Minister.
 2. Operation-level Committee for Advancing the Second Decade of Education Reform was to be under the chairmanship of the Minister of Education. A 5-year sunset clause was set for the functioning of the two committees.
- Establishing new agencies and/or adjusting the roles of existing organizations to serve as mechanisms for recognition of quality and standards and for increased opportunities for continuous lifelong education/learning, such as the Teacher Education Institute, National Vocational Qualifications Institute, National Institute for Educational Technologies, and Fund for Development of Educational

Technologies, and adapting the role of the Office of the Non-formal and Information Education Commission for transformation into an Office of Lifelong Learning.

- Additional assignments to existing agencies or accelerating operations were as follows: learning quality assurance and certification of learners' standards, accelerating power decentralization to educational service areas and educational institutions, and promoting and providing support for alternative education (see Chap. 26).
- Concurrent mandatory development/improvement of supporting mechanisms includes developing the system for educational budgeting and financing, developing systems of information and communication technologies (ICTs) for education, and amending and enforcing educational laws and related legal instruments.

The proposals for the Second Decade of Education Reform (2009–2018) seemed to be another hope for Thai education. Through various meetings with concerned ministries, strategic goals and indicators of the reform were also set. Unfortunately, before it was implemented, the red-shirt political demonstrators became stronger with frequent fighting between the government and the opposition party. In the general election of 2011, the Democrat Party was defeated by the Puea Thai Party, and that was the end of another longtime attempt to advance education reform in the second decade.

In the policy reported to the parliament, Yingluck Shinawatra's administration (August 5, 2011–May 7, 2014) demonstrated that it stressed the change of the learning system and the distribution of tablets to all primary school children, actually avoiding the use of the word "education reform." Within 1 year and 10 months, her government changed four ministers of education. The first three of them did not mention the word education reform at all. It was not until Mr. Chaturon Chaisang became the Minister of Education in 2013 that education reform was emphasized again (MOE 2013).

21.12 Creating Accountability in the Education Reform System

In a seminar on "A Proposal of Basic Education Reform for Creating Accountability" on March 20, 2013, Dr. Somkiat Tangkitvanich, president of the Thailand Development Research Institute (TDRI), pointed out, based on the research conducted by a TDRI team, that the problems with the Thai education system stem from not the insufficient but the inefficient use of resources. The Ministry of Education's budget had doubled in the past decade, and the salary of public school teachers with a bachelor's degree had risen from BHT 15,000 in 2001 to BHT 24,000–25,000 in 2010. However, the students' test results in local (O-NET) and international (TIMSS and PISA) arenas were declining.

To overcome this inefficiency, the research team suggested that the reform system should include making schools accountable for the quality of education provided, granting schools administrative freedom so that they can hire proper personnel, allowing parents to choose schools based on the quality, reforming curriculum and teaching standards for the twenty-first century context (see Schwab 2016), boosting education quality by allocating more funds, and establishing a targeted assistance system for schools with special economic and social needs.

TDRI researchers also suggested that education reform should go hand-in-hand with the following five important changes, which should be implemented over 3 years starting from 2013.

21.12.1 Changing the Curriculum, Teaching Materials, and Technology

TDRI researchers suggested that skills of the twenty-first century should be set as the main goal and content, competencies or skills, as well as qualifications of students should be adjusted accordingly. The new curriculum should be concise, well-thought out, and integrated, so it emphasizes the subject's key ideas, allows project-based learning and teamwork, promotes the use of IT resources and students' self-learning skills so that they possess advanced thinking skills and can integrate multifaceted knowledge. The curriculum should be flexible so schools can adjust it to their context. Furthermore, classroom hours should be reduced, and a variety of teaching methods and learning approaches such as project-based learning, participative learning, interactive learning, constructivism, and connectivity should be used instead of the traditional teacher-centered and/or rote learning-oriented approaches.

21.12.2 Reforming Performance Assessment

A literacy-based test system in response to daily life problems should be developed to replace the Ordinary National Educational Test and others. Also, teachers and schools should be simultaneously assessed to boost accountability and result-based development. This way, problematic schools can be helped and capable school administrators properly rewarded. Academic performance results should be gathered, revealed, and reported to the public and added to the government's database for policy-making, so that parents can use the data in choosing schools. Moreover, formative evaluation should be revived in classrooms through various forms ranging from portfolios, projects, tests, to problem-solving.

21.12.3 Reforming the System of Developing Quality Teachers

Instead of hiring teachers, the government should focus more on quality control and knowledge management, transferring the professional development tasks to schools. It should allow schools to manage their operations with sufficient budget and power to make decisions about their training courses and trainers. There should also be an emphasis on turning knowledge into action, boosting teachers' skills, and promoting a professional learning community. Also, pay raises should be based on students' development and their test results, to encourage teachers to become more responsible about the quality of their students. Paperwork should be reduced so that teachers can focus more on teaching. Also, teachers should be promoted every 5 years on the basis of observation and documented results.

21.12.4 Assessing Educational Institutes' Quality

The research indicated that results should mainly be based on schools' internal assessment, while external assessment should be merely supplementary. In doing so, the Office for the National Education Standards and Quality Assessment should play a supporting role for schools and set the criteria necessary for proper quality control.

21.12.5 Reforming the Financial System

The findings of research revealed that the allocation of budget is rather supply-oriented than demand-driven. Therefore, instead of providing long-term funding, TDRI (2013) suggested that schools should be granted a per-head subsidy so that they become more accountable to students. Further, the allocation of budgets should be based on the school performance, and more funds should be provided to disadvantaged schools in order to minimize the gap among schools.

Researchers at TDRI introduced the word "accountability" to highlight Thailand's failure to implement education reform and students' declining academic achievement. At least the TDRI could help remind educators and educational personnel of their responsibility in educational development and the need for taxpayers to receive value for their money invested in education.

21.13 The Minister of Education's Policies

Upon returning to the position of the Minister of Education, Chaturon Chaisang (June 2013–May 2014) announced that the ultimate goal of his policies was to increase Thai students' performance and achievements in key subject areas measured in the Programme for International Student Assessment or PISA. For this purpose, the following eight policies were established:

1. Reform the whole learning system, including the curriculum, pedagogy, evaluation and assessment and career paths within the teaching profession, and assessment of educational institutions, so as to improve students' critical thinking ability, self-learning ability, and problem-solving skills.
2. Reform the current system of teacher training and development to ensure that Thailand will have sufficient qualified teachers and to ensure that teachers will be assessed and promoted in line with their successes in improving students' performance and achievements.
3. Accelerate the use of ICTs, including tablets, as tools to develop teaching pedagogy, learning content, learning standards, and evaluation and assessment standards and to promote lifelong learning in Thai society.
4. Raise the quality of vocational education to meet domestic needs as well as international standards by working closely with the private sector in implementing the Thai Vocational Qualifications Framework and by promoting the dual education system to improve students' knowledge, skills, employability, career paths, and remuneration and to increase the proportion of students in the vocational and general streams to 50:50.
5. Encourage higher education institutions to emphasize quality rather than quantity development and research and development of innovations and technologies through mechanisms such as performance-based budget allocations and using university rankings as a guideline in developing the quality and standards of Thai universities in comparison with acknowledged world-class universities.
6. Promote public-private partnerships, and encourage all stakeholders to participate more in educational provision and support, from curriculum design to practicum support beyond the dual education system. This will assist to focus the public sector's role more on supporting the private sectors and on development and control of overall quality and standards of education.
7. Increase and promote access to quality educational services for Thai citizens of all age groups, in particular the underprivileged, through several mechanisms, including income contingent loans, to improve access to and quality of higher education and to produce graduates to meet domestic needs in line with the original intent of the income contingent loan program.
8. Improve education access and quality in the southernmost provinces of Thailand by developing educational institutions in line with local economic imperatives and the sociocultural identity of local people, emphasizing increasing security and morale of students, teachers, and educational personnel.

The Minister also stressed some challenging strategies to implement these policies such as (1) accelerating the establishment of the Institute for Educational Technologies as specified by law to increase access to educational resources and to further develop education technologies and (2) establishing an Institute for Curriculum Research and Pedagogy Development to carry on the task of developing and increasing the body of knowledge, and pedagogical innovation and standards, on a continuous basis. These progressive policies were not yet implemented when Minister Chaturon Chaisang was removed from his position by the military coup on May 22, 2014.

21.14 Education Reform Under the National Council for Peace and Order

After the military coup d'état on May 22, 2014, the military government of the National Council for Peace and Order (NCPO) declared that it would be in power for only one year to reform the politics before a general election would take place in 2015. During one year of its administration, the government demanded that the basic education curriculum had to emphasize the teaching of history in order to cultivate in learners the pride of the nation's history and the appreciation for the sacrifices of our forefathers. Citizenship education and the 12 desirable social values must be strengthened to build the good character of the future generation.

The idea of molding democratic-minded citizens was welcomed by much of the public. Actually content related to this matter were already described in Section 7 of the 1999 National Education Act, but what education reformers are concerned about is the way of teaching the 12 social values which is rather "rote learning" than "learning by doing." Most of all, the duration of one year is certainly not long enough to expect any significant changes. Actually this government already has been in power for more than four years. Whatever policy this government initiates may not be adopted by a future government. Besides, the Minister of Education who took over after the coup was the former navy commander who introduced himself as a "pseudo-educator," ignorant about education reform. The current Minister, Dr. Teerakiat, however, does have a strong educational background (see Appendix II). Speaking about education reform in this government, not much attention is being paid to the reform of teaching, learning, and assessment. Instead the focal point of concern of the ministry is on structural reform such as the possible separation of the Office of Higher Education Commission from the Ministry of Education to be reestablished as the Ministry of University Affairs and the reorganization of Office of the Basic Education Commission (see also Fernquist 2015).

21.15 Conclusion

21.15.1 Success and Failure of Education Reform in the First Decade: The Issues of Quality, Equity, and Decentralization

The aim of education reform according to the 1999 National Education Act was to change the whole system of Thai education. The distinctive characteristics of Thailand's education reform are not only the provision of lifelong learning to achieve Education for All but also the involvement of all parts of society to achieve All for Education.

However, on the occasion of the tenth anniversary of the promulgation of the 1999 National Education Act, the Office of the Education Council had reviewed the accomplishment of the education reform and found that not much emphasis was actually placed on learning reform. Instead, the focal point of the reform was rather the restructuring of the Ministry of Education and its local organizations (Table 21.1).

Based on the documentary research and seminars mentioned above, the conclusion was that education reform in the past decade actually yielded more failure than success, taking into consideration the key issues of quality, equity, and decentralization.

In terms of equality of expanding educational opportunity, according to the educational statistics (2014) reported by Office of the Education Council in the year 2015, the ratios of students per the age group of population at each education level are as follows: preprimary education (age 3–5) was 116.3%, primary education (age 6–11) was 100.4%, lower secondary education (age 12–14) was 89.9% higher than 82.8% in the year 2000, upper secondary education (age 15–17) was 76.8% much higher than 57.3% in 2000, and higher education (age 18–21) was 49.3% (OEC 2015). The access to Education for All was slightly improved according to the steady increase in enrollment at the secondary education level. Inclusive education was promoted but only some ready schools can accommodate children with disabilities.

Pertaining to the learning reform, up to then, the heart of the overall reform, which was the change from a teacher to a learner-centered approach, had been achieved to some extent and in some cases, but continuous stimulation was needed to motivate both teachers and students to change their teaching and learning behaviors. The promotion of lifelong learning was not systematic, so the goal of achieving a learning society according to the National Education Plans 2002–2006 and 2009–2016 is still far from reality. The most critical issue of Thai education now is the matter of quality (see Chap. 19). Not only are the O-NET test scores of students leaving primary, lower secondary, and upper secondary schools low, but the results of the international tests indicate that the country's competitiveness is also unsatisfactory and actually declining (see Chaps. 6 and 19).

Concerning the decentralization of power of education administration to Education Service Areas, the Education Service Area committees are generally

Table 21.1 Education before and after the 1999 education reform

Education reform issues	Situation of education before the reform	Expected results after the reform
Educational rights and duties	6-year compulsory education	9-year compulsory education
		12-year basic education free for all (including the disabled, the disadvantaged, and the gifted students)
		Right to provide education by families, entrepreneurs, community organizations, and private organizations
Education system	Emphasis on formal education	Promoting lifelong education (three systems of education, formal, nonformal, and informal)
		The system of transferable credits
		Validation of experience
Learning reform	Teacher-centered teaching	Student-centered learning
	Separate subjects	Integration of subjects
	Rote learning	Learning from experience
	Paper-and-pencil test	Authentic assessment
Educational administration and management	Centralization of education administration	Establishment of education service areas
		Transfer of schools to local administrative organizations
		Juristic schools
		Autonomous universities
Education standards and quality assurance	Unstructured monitoring and evaluation	Internal evaluation
		External evaluation
		Establishment of ONESQA
Teachers, faculty, and educational personnel	4-year teacher education	5-year teacher education
		Licensing system
		Professional development
Resources and investment for education	Line-item budgeting	Per-head budgeting in the form of subsidy
Technology for education		Provision of computers, internet system, and other educational technologies

comprised of knowledgeable persons in the local areas; it appears that the subcommittee on teacher and education personnel had more power than the committee itself which oversees only general affairs. Schools may enjoy the status of a juristic school and adopt the school-based management, facilitating the resource mobilization and budget spending, but a high degree of participation from community and parents is not allowed by schools.

Since the start of the reform, teachers must have a license to ensure their advanced professionalism. The teacher education institutions have strengthened the quality of graduates by expanding from 4-year to 5-year undergraduate courses with the last

year meant for intensive practical training. However, the establishment of a Fund for Promotion and Development of Teachers, Faculty Staff, and Education Personnel to be used as grants for innovations, outstanding achievements, and rewards in honor of teachers, faculty staff, and teaching personnel remains undone, which tremendously hinders any attempts to strengthen teaching professional standards.

As for educational resources, it turned out those large schools in urban areas benefit from the allocation of per-head budgeting in the form of subsidies more than small schools in rural areas. The latter not only suffer from the inadequate budget for the education development due to the small number of students but also find it difficult to mobilize resources from poorer rural communities. Regarding the distribution of technologies for education, most schools in the country are now well equipped with computers and Internet access, but the mobilization of financial resources for the establishment of a Technology for Education Development Fund is not yet achieved.

Perhaps the most concrete change stemming from the education reform according to the National Education Act is an implementation of the system of education quality assurance. In the first phase of external assessment (2001–2005), there were several problems such as misunderstanding of the philosophy of evaluation which was meant for development, not mistake seeking or fault finding. School teachers and principals had negative attitudes toward the external evaluation, with the assessment placing too much emphasis on documents. In the second round (2006–2010), schools became more familiar with the system but still experienced much stress from the excessive paperwork involved. Then in the third period (2011–2015), the issuance of the Ministerial Regulations concerning the Internal Quality Assurance has played a vital role in schools' internal assessment to get schools ready for an external evaluation. Therefore, the stress may be lessened, and schools and communities are now more accustomed to the assessment system. The most successful effort of ONESQA may be seen in the imbedding of the results of O-NET¹ as an indicator for the assessment, which highly contributes to schools' concerted effort in the reform of teaching and learning. Although the overall result is above average, schools' standard will not be certified at all if the indicator concerning O-NET scores does not meet the minimum requirement. However, the extent to which the involved personnel such as teachers, principals, supervisors, and evaluators do not understand truly the value of assessment and utilize earnestly the results of the assessment to improve the quality of their schools, the system of education quality assurance will become meaningless, and the call for the dissolution of ONESQA will occur whenever there is a political change.

¹ Ordinary National Education Test (O-NET) which is implemented for school leavers from primary, lower secondary, and upper secondary education levels.

21.15.2 Overall Assessment of the Evolution of Education Reform in Thailand

Education reform of Thailand is undoubtedly following similar good principles as in many other countries, but there are many problems in implementation. International education community members who are interested in Thai education may wonder why it has been so difficult to implement the extremely progressive reform ideas in Thailand (see Fry 2002b; Fry and Bi 2013; Krissanapong 2009; Nicha 2018; Somkiat 2018; Sondergaard 2018; Waraiporn 2005). The answers can be summarized as follows:

First, one important obstacle facing education reforms in Thailand in the past century is the resistance to change that might be caused by both misunderstanding and conflict of ideas or *vested interests*. Especially in the democratic period, the resistance from the government officials within the Ministry of Education was stronger than from any other groups of stakeholders. Resistance from those who would lose their benefits from the change always naturally happened. That was why there were attempts not to comply with the law or amend the law whenever there was a change in politics.

Second, the education reform process was often disrupted by the instability of politics and the frequent changes of governments. Since the beginning of the reform in 1999, there have only been a very few ministers who have been in office for more than one year. Some stayed only 3 months. Since the year 2000, there have been 20 different ministers of education (see Appendix I). Every minister always came to the position with his own policy, and no single policy remains sustainable after he was removed. Some of them were against the reform. Others might technically support it but in reality place more emphasis on their own ideas. This also applied to the high-ranking officials of the ministry. Dr. Gerald W. Fry of the University of Minnesota, a Thai education expert, once said that continuity in leadership is important at all levels. Frequent changes in administrators are highly disruptive of the reform process. Having the top civil service leadership in the Ministry of Education change nearly every year is not conducive to producing visionary leadership for change.

Dr. Rung, former Secretary-General of Education Council, also said that a comprehensive reform is difficult to succeed unless the government is highly visionary, committed, and stable. Based on the history of education reform in Thailand, a radical change is unlikely to occur, unlike the radical education reform of Japan after WWII which was successfully completed under the supervision of the US Education Mission to Japan and the General Headquarters during the occupation period (Textor 1951). Dr. Sutthasri Wongsmarn, Permanent Secretary of Education, MOE, in an interview by Professor Dr. Yukuo Murata of Kyoto Women's University in May 2014, also stated that the Ministry and Office of the Education Council has prepared

an education reform plan which was already modified by public hearings from every part of the country but could not be submitted because of the political change and climate.

Thirdly, the same as the political problem, there has been a lack of nonpartisan, strong leadership, and organization for education reform. The Office of the Education Reform (OER) performed its functions and duties according to the Act for only 3 years during which the resistance from both the government and officials was severe. The Office of Education Reform which became simply another organization under the jurisdiction of the Ministry of Education seemed to be weakened by the Ministry's bureaucratic culture and thus lost its academic freedom and leadership.

21.15.3 Effective Partnerships for Education Reform

While the implementation of education reform by the government agencies was disrupted by many uncontrollable obstacles, nongovernmental organizations demonstrated more effective performance. The Office for the Promotion of Learning Society and the Quality of Youth, funded by the Quality Learning Foundation and Thai Health Fund, is one of the nongovernment organizations that has played an important role in advancing education reform by inspiring new modes of teaching and learning and promoting equal opportunity in education and school-based management. The Office was highly successful in selecting the high-performing teachers to demonstrate their best teaching practices. Since September 2012, the Office has supported ten provinces in their pilot projects to experiment with the self-managing provinces for learning reform to achieve All for Education. The pilot study found that there are three key factors highly contributing to the success of education reform: the decentralization of power in education administration from the Ministry to schools, the collaboration of concerned agencies and people for learning reform in local arenas, and the area-based learning reform hosted by the provincial administrative organizations. In addition, the collaboration from all parts of society such as research institutes, private institutions, higher education institutions, and others was also stressed in the project.

At present several provincial administrative organizations have established their own Office for Education, Religion, and Culture (OERC) and an education reform network reflecting their readiness to operate education according to the community needs. For example, the Chiang Mai Provincial Administrative Organization proposed the Chiang Mai Model to provide education in accordance with Chiang Mai's distinctive context. At the 35th seminar on "Learning Reform toward Education for All: A Strategic Plan of Education Reform in Chiang Mai by Using an Area-Based Approach" organized by the Office for the Promotion of Learning Society and the Quality of Youth, Pairat Maichompu, the Chiang Mai OERC Director, stated that the crisis in education is now a national problem, and the centralization of education administration which has many constraints can no longer solve the problems effi-

ciently. The Chiang Mai Model, supported by 120 local agencies and 80 organizations, is aimed at providing education that cultivates children with the pride of local identity along with the twenty-first century skills. It also encourages the creation of a learning society by the people for the people.

Chalearmchart Nakarangkul, chairman of the Chiang Mai Chamber of Commerce, stated that the private sector which has long been passive employers needs to take greater part in education reform since there is increasing negative feedback from private employers about unqualified graduates. He suggested that the proportion of vocational education compared with general education should be increased from 34:66 to 70:30 (see Chap. 7).

Dr. Prawase Wasi, M.D., argued that education reform cannot be accomplished by a top-down approach through using orders or authority. Only the bottom-up approach starting from the collaboration at the rice roots level will lead to a sustainable change. The Chiang Mai Model is a valuable case study that will demonstrate the shift from commandment to empowerment. By this way, the classroom instruction will be able to change from rote learning to self-learning in which students can acquire knowledge through creative activities and learn happily.

However, while many local administrative organizations are continuously involved with education reform, there are also some cases in which active participation dissolves with the change of the head of organizations and there is no sustainability. This reaffirms that the agent of change is the most important factor at every level of education administration.

The opinions of Thai educators about the past education reform are in line with the study findings by international researchers. For example, in their study “A decade of education reform in Thailand: Broken promise or impossible dream?,” Philip Hallinger and Moosung Lee of the Hong Kong Institute of Education (2011) investigated the perceived gap between the vision of education reform in Thailand embodied in its Education Reform Law of 1999 and the results of implementation a decade later. The data obtained from a sample of 162 Thai school principals were analyzed to identify trends in reform implementation across schools in all regions and levels of Thailand’s K-12 education system. The results suggest that a decade following the formal initiation of education reform, changes in teaching and learning, ICT implementation, and school management systems have yet to engage the nation’s teachers to a substantial degree. The lack of results is linked to a reform strategy that has emphasized top-down implementation and a cultural predisposition to treat change as an isolated event rather than as a long-term systemic process (see Chap. 22).

Moreover, in their study focusing on the education of the children and youth of hill peoples entitled “Education, Economy and Identity: 10 years of Education Reform in Thailand,” Baron-Gutty, Audrey, and Supat (2009) note that the formal education system, which is centralized in its structure, curriculum, and regulations, is still largely inaccessible to ethnic marginalized people. The quality of the education delivered is also questioned for it has been largely based on Western knowledge and models, while local knowledge and culture have been neglected. The more children attend school, the less they learn about their indigenous knowledge and cul-

ture. Ethnic language and indigenous knowledge that have been developed and transmitted for hundreds of years may be lost (see Chap. 15).

However, in the last two decades, there have been attempts by the government to reform the education system to provide access for all and accommodate local knowledge and culture into the formal system by reinforcing Thai wisdom with local curriculum at school, to provide more options for livelihoods and the development of other sectors of the society. Attempts have not yet generated clear successful results. The educational structure is still too centralized with limited participation from civil society.

With respect to the decentralization challenges, using Article 44, on March 21, 2016, the Thai government articulated a new model of decentralization emphasizing the role of provincial education committees to design education to meet the unique needs of each province and local area. This policy reflects the area-based education model which was developed with support of the Quality Learning Foundation and the Thailand Research Fund (Chuachan and Aroonsi 2013; Maxwell 2016; MOE 2016). A key rationale for this approach to decentralization is to foster more collaboration among key educational stakeholders at the provincial level going beyond the schools under OBEC. It will be interesting to see if this model fosters greatly needed participation in education from civil society or results in a kind of local recentralization.

Revisions or improvements are slow, whereas real and timely reforms are needed. With many challenges ahead, the reform of the Thai education system will not be achieved by the work of only one or two agencies. All stakeholders including the state, NGOs, public organizations, and civil society must realize that education reform is a priority and put all their efforts together to improve the accessibility, equity, and quality of education for a better society and enhanced quality of life.

21.16 Suggestions to Advance Education Reform in Thailand

1. Learning reform must be given priority in the education reform package with the aim of fostering lifelong learning and a learning, reading society. The operation of education at every level from preprimary to higher education must attach great importance to learning reform as the heart of education reform. Instead of undertaking more organizational structural reforms, more energy and resources should be geared at activating the classrooms, providing necessary technologies so that students can learn to search for knowledge by themselves. Learning activities must be designed to enrich students' thinking skills, critical thinking abilities, and reasoning capabilities.
2. The decentralization of power in educational administration to local administrative organizations, especially at the provincial level, should be concretely realized with an emphasis on the involvement of people from all parts of society. The good practices of boards of education in the USA and Japan may be lessons learned for Thailand in this regard. In doing so the Ministry of Education should

equip the local stakeholders with knowledge and deepen their understanding of the true value of education reform. Moreover, it is essential to decentralize the power to governing boards, not to an individual authority. Dr. Kunying Kasama Varavan Na Ayudhaya, former Secretary-General of the Basic Education Commission, once said, after a study visit to Japan, that she fully agreed with the principle of decentralization if the power is really delegated to the people, not entirely to the local government authorities which can result in “recentralization” at the local level.

3. The private sector should be encouraged to take part in the process of education reform. The inspiring success of the Thai Farmer Bank (Kasikorn Bank) in the campaign for education reform in the 1990s could be an exemplary case in this respect. As it is explicit that no single organization is an adequate force to push education reform into action, the Ministry of Education must change its role from the sole source of power to be just a coordinator, a “coach,” and a facilitator and inspire all in society to join in the process of education reform of the people, by the people, and for the benefit of the people.
4. Reorganization of education reform agencies is required for the continuity of the education reform policy and implementation. Therefore, the Ministry of Education should reconsider the plan of establishing a new Office of Education Reform as an independent quasi-governmental organization so that it is free from politics and flexible in administration. The duration of the Office should be at least 10 years to assure the success of the reform. In addition to this, the Ministry should not hesitate to also establish other necessary independent agencies such as an Education Technology Fund, Teacher Development and Promotion Fund, and Lifelong Learning Promotion Fund to facilitate education reform.

21.17 Conclusion

In conclusion, at the end of the year 2015, the ten-member countries of ASEAN became the ASEAN Economic Community (AEC). Each nation has tried to pave the foundation for its competitiveness by reforming education to prepare competent citizens for a rapidly changing future (Wittaya 2016). Singapore and Vietnam have achieved impressive success, with implications for Thailand (Maxwell and Peerasit 2017). Thailand is no exception. Several attempts have been made to implement the country’s education reform policy effectively, but unlike in many other countries, the reform policy of Thailand has many times encountered uncertainty and discontinuity mostly due to uncontrollable political changes. This powerful theme and motif which has adversely affected chances for genuine reform reflects the wisdom articulated long ago by former Prime Minister Pridi Banomyong (the founder of Thammasat University) in his book, *The Impermanence of Society* (Pridi 1970). Thai educators recognize that it is impossible to stabilize or entirely depend on Thai politics in the near future. What can be done hereafter is the greater collaboration between the Ministry of Education and all parts of society in advancing education

reform for enhancing the country's competitiveness and long-term well-being. Instead of using the "top-down" approach alone, the Ministry should reposition itself to act as a facilitator of education reform, delegating its decision-making power and operational duties to schools, provincial education committees, and local administrative organizations. Active public participation from all parts of society may be the only and last hope for Thailand to make education reform a successful living reality, essential for the future of Thailand.

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Chapter 22

Thailand's Challenge of Systemic Education Reform: Where Are the Leaders with the "Right Stuff"?



Philip Hallinger

Abstract The past two decades have witnessed active education reform throughout much of the world. This has also been the case in Thailand where a succession of governments joined the international race to climb the ladder of economic competitiveness by enhancing the quality of education. This resulted in a continuous stream of education reforms aimed at changing normative methods of school management, teaching, and learning. Yet, a decade of research on reform implementation in Thailand suggests that its ambitious new vision of education has yet to be realized (Fry and Bi 2013; Hallinger and Lee 2011, 2013, 2014; Maxcy et al. 2010; Mounier and Phasina 2009; Nonglak et al. 2004; Waraiporn 2007).

Currently Thailand faces the challenge of finding leaders with "the right stuff" to transform fundamentally its system of education. Thus, this chapter addresses two basic questions:

1. Does the current cadre of Thailand's principals have "the right stuff" to meet the challenges of implementing national education reform?
2. If not, what changes are needed in order to ensure that there is sufficient density of school-level leaders with the right stuff to support educational change and reform?

To answer these questions, empirical findings are synthesized from studies of leadership and education reform in Thailand. These research findings are then interpreted within the context of current system structures, norms, and processes. The chapter is organized into four main sections: education reform in Thailand from 1990 to 2015, the changing leadership roles of school principals in Thailand, systemic challenges of developing principals with "the right stuff," and conclusion and implications.

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22.1 The Need for School Leaders with the “Right Stuff”

One obstacle identified as an impediment to progress in reform implementation is insufficient leadership at the school level (Hallinger and Lee 2011, 2013, 2014; Leonhardt 2017). The critical role played by school principals in education reform was highlighted by Thailand’s former Permanent Secretary of Education, Khunying Dr. Kasama Varavan Na Ayudhaya:

The reforms we have undertaken at the national level cannot be accomplished without active involvement and leadership from our school principals. Without skillful leadership and active support from the principal, how can teachers hope to make these changes in curriculum and teaching? But our principals need motivation as well as more skills to lead these changes in their schools. (Kasama 2008, personal communication)

The challenge articulated by Dr. Kasama mirrors that faced during the 1960s when the USA was competing with the Soviet Union to put a man on the moon. The National Aeronautics and Space Administration (NASA) recognized that manned space flight would require a different set of physical, emotional, and skill capacities than those possessed by pilots of previous eras. This led NASA to develop new systems of recruitment, selection, and training aimed at producing pilots with “the right stuff” to meet the new challenges of manned space flight.

22.2 Education Reform in Thailand: 1999 to 2015

During the 1980s and 1990s, Thailand, like other rapidly developing nations in Southeast Asia, undertook expansion of educational access in the belief that sustainable economic development would require a more knowledgeable and skilled labor force (Chinnapat et al. 1987; Carnoy 2003; Fry 2002; Fry and Bi 2013; Lockheed and Levin 1993; ONEC 1998; 1999; Prawase 1998; Sippanondha 1984). Over a 15-year period, Thailand raised the level of compulsory schooling from 6 to 9 years and then finally implemented the policy of 12 years of free schooling (ONEC 1998, 1999). Despite progress in expanding educational access, it was widely acknowledged that traditional educational practices had remained largely unchanged. Indeed, a growing consensus among policymakers and the public articulated the belief that this had simply increased the number of students being exposed to the “pedagogy of the worksheet” (Pennington 1999, p. 2).

Thailand’s economic crisis in 1997 was a wake-up call to the nation. Suddenly the cost of complacency had become clear. Integration into the global economy would require a better educated citizenry. Subsequent discourse shifted toward the urgent need for developing capabilities that would enable Thai society to cope with the complex economic, social, and cultural forces and challenges of globalization.

A chorus of influential voices asserted that continuing reliance on rote learning would impede the nation's further development (Ampa and Sirikul 1998; Chinnapat et al. 1987; Mun and Wheeler 1993; ONEC 1999; Pattama 2004; Pennington 1999; Prawase 1998; Rung 2001; Sumlee 1999; Tawin 2002). Dr. Sippanondha Ketudat, a former minister of education, claimed that Thai schools needed to "create a learning atmosphere to encourage students to think analytically" (Sirikul 1997, p. 2). Professor Prawase Wasi (1998), a respected academic and Magsaysay Award winner, asserted that a failure to change deeply seated approaches to education would lead to "national disaster."

These perspectives, however, reflected the *aspirations* rather than the *reality* of change in Thailand's schools (Chinnapat et al. 1987; Fry 2002; Mun and Wheeler 1993). Consequently, in 1999 Thailand passed a visionary National Education Act (ONEC 1999) aimed at transforming teaching, learning, and management in Thailand's approximately 35,000 primary and secondary schools (Fry 2002; Fry and Bi 2013; Pattama 2004; Rung 2001; Sumlee 1999). It is notable that the aims of Thailand's education reform legislation were not limited to enhancing the economic impact of education but also the society's social and cultural development (Fry 2002; Rung 2001).

New national educational goals were established to ensure that high school graduates would be capable of applying knowledge to solve society's problems, with a strong moral foundation, and the capacity to live fulfilling lives (Fry 2002; ONEC 1999; Pattama 2004; Rung 2001). In practical terms, the National Education Act (NEA) (ONEC 1999, 2003) sought to decentralize management authority for education, engage local initiatives in the management and delivery of educational services, support the integration of "local wisdom" into the curriculum, empower teachers, create a more active learning environment, set curriculum standards and new means of assessment, and refocus the system on the enhancement of quality of learning (Fry 2002; Fry and Bi 2013; ONEC 1999; Pattama 2004; Sumlee 1999; Waraiporn 2005).

Responsibility for initiating and leading education reform in Thailand was shared by the Office of the National Education Commission (ONEC) and the Ministry of Education's Office of Basic Education (OBEC). Also a special Office of Educational Reform (OER) headed by Dr. Chuachan Chongsatitoyo was established in January 2000 to facilitate implementation of the reform (Raingan 1999). This office operated for the first 3 years of the reform. The following quotation conveys the ambitious and urgent vision for change as stated by the Secretary General of ONEC, Dr. Rung Kaewdang, in 2000:

Thailand has passed an Education Reform Law. Learning by rote will next year be eliminated from all primary and secondary schools and be replaced with student-centered learning... Any teachers found failing to change their teaching style would be listed and provided with video-tapes showing new teaching techniques. If they still failed to improve, they would be sent for intensive training. (Sirikul 2000, p. 5)

To be fair, this quotation oversimplifies the complex education reform strategy formulated by ONEC (Fry 2002; Fry and Bi 2013; Rung 2001; Tawin 2002; ONEC 1999, 2003). It is important to understand that the “vision of change” articulated by Dr. Rung conveys behavioral norms deeply rooted in Thai society (see Rung 1977). There is an implicit cultural disposition to believe that people (e.g., teachers) will do as they are told by those who are more senior in rank. Hofstede et al. (2010) referred to this disposition as “high power distance.” Evidence of this social norm is well documented not only in Thailand’s education system (e.g., Hallinger 2004; Hallinger and Pornkasem 2001; Mun and Wheeler 1993; Parkay and Wirat 2001) but also in the business and other sectors (see Holmes and Suchada 1996) and Thai society more broadly (Mulder 1997; Persons 2016; Redmond 1998).

Armed with this ambitious vision and strategy for change, Thailand’s education policymakers subsequently adopted additional measures aimed at supporting the broad aims embedded in the NEA of 1999 (Fry and Bi 2013; Hallinger and Lee 2011; Kasama 2008, 2011). These included policies aimed at curriculum innovation (Pornkasem et al. 2006; Rungnapa 2002), school-based management (Gamage and Sooksomchitra 2004; Tan 2007), and educational quality and accountability (Amornwich 2009; Mounier and Phasina 2009; Natthapoj 2011; Waraiporn 2005).

During this period, perhaps for the first time, Thailand’s efforts at educational change have been the subject of systematic empirical study by researchers examining classroom-level (Amornwich 2009; Nonglak et al. 2004; Phungphol 2005), school-level (e.g., Natcharin 2010; Pattama 2004; Pornkasem et al. 2006), and system-level (e.g., Fry and Bi 2013; Hallinger and Lee 2011; Tan 2007) processes. What have we learned concerning the process and impact of Thailand’s effort at education reform?

Empirical findings suggest that these reforms have yet to influence the broad base of Thailand’s primary and secondary school classrooms (Hallinger and Lee 2011). Moreover, the impact of Thailand’s education reforms has fallen well below the expectations of both policymakers and the public (Amornwich 2009; Barron-Gutty and Chupradit 2009; Fry and Bi 2013; Hallinger and Lee 2011, 2013, 2014; Hallinger and Bryant 2012; Krissanapong 2009; Mounier and Phasina 2009; Natcharin 2010; Nattaphoj 2011; Nonglak et al. 2004; Pusawiro 2012; Suwimon and Nonglak 2004; Tan 2007; *The Nation* 2010; Waraiporn 2007). For example, in a major evaluation of Thailand’s progress in reform implementation, Hallinger and Lee (2011) concluded as follows:

We interpret our results as largely consistent with these [other] empirical studies of education reform implementation in Thailand. Our findings similarly suggest evidence of progress, but a lack of deep penetration of the reforms in a large percentage of schools. Thus, all three studies describe the pattern of implementation as variable across teachers, and partial or surface in the nature of impact. In sum, we conclude that the picture of reform progress offered here is one of slow progress with a record of mixed success. (Hallinger and Lee 2011, pp. 155–156)

It is notable that these evaluation studies centered first and foremost on changes in teaching and learning processes in schools and classrooms (Pattama 2004; Phungphol 2005). For example, in the above-quoted study, Hallinger and Lee (2011) reported that their nationally representative sample of more than 1800 Thai principals viewed changes in teaching and learning as the most important reforms embedded in the *National Education Act* of 1999. Yet, a decade after adoption of the NEA, these principals perceived fewer than 35% of their teachers as active implementers of key reforms such as student-centered learning, cooperative learning, brain-based learning, localized curriculum content, and use of technology in teaching and learning (Hallinger and Lee 2011).

Hallinger and Lee (2013, 2014) subsequently developed a “national profile” of principal instructional leadership in Thailand in order to gain a perspective on the capacity of Thai principals to support education reforms in teaching and learning.¹ We found that Thai principals were not engaging actively in core instructional leadership functions such as developing instruction, monitoring student progress, and coordinating curriculum. This finding applied across school levels and regions of the country (Hallinger and Lee 2014). The recently completed OECD-UNESCO review (2016) of Thai education came to exactly the same conclusion “that the country’s principals, in general, still focus more on administrative duties than on teaching and learning” (p. 223). Also principals, particularly those in smaller schools, lack resources and funds to realize their visions and demonstrate their leadership (OECD-UNESCO 2016).

Hallinger and Lee (2013, 2014) conducted another study that examined how the reform policies embedded in the NEA of 1999 had reshaped the role orientation of Thailand’s principals (see also Chalermrat 2001; Hallinger 2004; Pongsin 2001). More specifically, the study sought to determine if there were changes in the profile of principal instructional leadership in Thailand between the 1990s and 2008. Our comparative analyses of data on principal instructional leadership collected before and after adoption of the NEA found *no increase in the level of engagement* in instructional leadership among Thailand’s secondary school principals a decade following passage of the NEA. Indeed, the data profiles analyzed in this study conveyed a picture of considerable stability in the patterns of principal instructional leadership practice. Thus, even in the face of a major change in the institutional context of education, the authors found no evidence that Thailand’s principals were engaging this role more actively than in the past (see Hallinger and Bryant 2012; Hallinger and Lee 2011, 2013, 2014).

In sum, although Thailand’s national vision of education underwent a sea change in 1999, on the whole Thailand’s principals do not appear to have “the right stuff” to bring the new vision to life. In stating this conclusion, the author is not laying blame for slow progress at the feet of Thailand’s principals. Instead, I wish to suggest that system leaders have failed to redesign system structures and processes that

¹We note that although the PIMRS had also been used in studies in Taiwan, Malaysia, and China, differences in the school level and sources of the samples (i.e., teachers, principals) limited the utility of direct comparison with data drawn from these studies.

prepare principals to enact their new roles. Before considering the nature of the redesign challenge, we need to understand more clearly the existing situation in which Thai principals carry out their job roles and responsibilities.

22.3 The Context for School Leadership in Thailand

Clearly defining the systemic challenges for developing a cadre of Thai school leaders with the “right stuff” to drive education reform requires us first to understand the existing roles played by principals in Thailand’s education system. Larry Cuban (1988) earlier proposed that school principals typically fulfill political, managerial, and instructional leadership roles. Cuban asserted that there is a *DNA* in the principalship that presses occupants toward the political and managerial roles and away from the instructional role. Although Cuban’s analysis was explicitly oriented to the principalship in the USA, it provides a relevant frame for our exploration of principal leadership in Thailand.

Thailand’s education system has traditionally given the greatest weight to the managerial and political dimensions of the principal’s role (Chalermrat 2001; Gamage and Sooksomchitra 2004; Hallinger 2004; Hallinger and Lee 2011; Hallinger et al. 1994; Natcharin 2010; Parkay and Wirat 2001; Ratchanida 1997; Wirot et al. 2003). Thai principals are civil servants who function as line managers within the hierarchy of a highly centralized national system of education (Hallinger 2004; Hallinger et al. 1994). Ministry of Education officials have historically viewed the principal as a locally-situated guardian of the nation’s education policies and cultural values (Hallinger 2004; Tan 2007; Hallinger and Lee 2011; Maxcy et al. 2010). Thus, principals have traditionally been cast as implementers of government policy, rather than as initiators, innovators, or leaders (Gamage and Sooksomchitra 2004; Hallinger 2004; Hallinger and Lee 2011; Hallinger and Pornkasem 2001; Natcharin 2010; Ratchanida 1997; Tan 2007). Moreover, Thailand’s education culture has never featured a normative tradition of instructional leadership, even in professional rhetoric (Hallinger et al. 1994; Hallinger 2004; Koolchalee 2008; Natcharin 2010; Pathomporn 2001; Pongsin 2001; Ratchanida 1997; Suneo 1999; Vipaporn 1993; Wirot et al. 2003).

This trend is consistent with findings from an important international comparative study of principal time allocation undertaken by the author (Lee and Hallinger 2012). This study found that principals in less economically developed countries tend to spend less time on management of curriculum and instruction and more time on organization and management roles. This role emphasis was further accentuated if the national culture gave greater emphasis to status differentiation in social relations (see also Hallinger and Truong 2014; Parkay and Wirat 2001; Wirot et al. 2003). This was the policy context that shaped the role of Thai principals prior to the passage of the National Education Act in 1999.

In Thailand's post-reform era, however, principals are expected to lead teaching and learning to an extent that simply did not exist in the past (e.g., see Chalermrat 2001; Gamage and Pacharapimon 2004; Hallinger 2004; Maxcy et al. 2010; Natcharin 2010; Pattama 2004; Parkay and Wirat 2001; Pornkasem et al. 2006; Rungnapa 2002; Wirot et al. 2003). Moreover, the gradual implementation of school-based management over the past decade has resulted in new system expectations for principals to involve a broader variety of stakeholders in formal educational decision-making in their schools (Gamage and Pacharapimon 2004; Hallinger and Lee 2011; Kasama 2008, 2011; Koolchalee 2008; Nithi 2007; Natcharin 2010; Rungnapa 2002; Sunee 1999). Empirical evidence suggests that although Thailand's principals have generally supported these changes, they remain uncertain "how to enact their new roles effectively" (e.g., Gamage and Pacharapimon 2004; Hallinger 2004; Hallinger and Lee 2011; Koolchalee 2008, Natcharin 2010; Pathomporn 2001; Rungnapa 2002).

22.4 Challenges for Developing School Leaders with "the Right Stuff" in Thailand

The former prime minister of Thailand, Chuan Leekpai, asserted: "Quality does not depend on budget... more important is the extent to which administrators are dedicated to improving quality" (*Bangkok Post* 1992, p. 1). Dedication to a goal is no doubt essential to its achievement. However, simply expecting different practices from school leaders in the absence of proper preparation is perhaps unrealistic. Thus, it should not be surprising to find that the subsequent articulation of new goals and expectations by Thailand's system leaders has been insufficient to bring about change in principal behavior.

In the face of a long tradition of managerial and political emphases in the principalship, change in role identity and behavior among Thailand's principals requires a comprehensive long-term human resource strategy. System leaders will need to mobilize the full range of human resource management (HRM) tools in order to reorient Thai principals toward leading education reform. These HRM tools include recruitment, selection, training and development, on-the-job support, and performance evaluation. In this section of the chapter, we reframe the task of producing principals with "the right stuff" to lead education reform as a system-level human resource management challenge.

22.5 Human Resource Management (HRM) in Thailand

As suggested above, Thailand's school principals are managed via a set of national-level, civil service policies and guidelines that govern their recruitment, qualification, selection, preservice preparation, job evaluation, and in-service development.

These features of the institutional context of Thai education have undergone relatively little change during the nearly 20 years since passage of the NEA.

In fact, the general HRM practices of Thai organizations have been slow to change when compared with global trends in this domain of organizational management (e.g., Lawler and Sununta 1997; Sununta and Bechter 2005). Thai organizations have traditionally approached recruitment, selection, training, and job evaluation HRM as discrete activities aimed at the “processing” of personnel (Lawler and Sununta 1997; Sununta and Bechter 2005). The primary reference points of these personnel functions have been to identify a pool of candidates (qualified or not) for vacant positions and ensure organizational compliance with labor and civil service laws and union contracts. This approach to human resource management, however, fails to develop or exploit the potential of staff capacity.

The Thai financial crisis of 1997 raised general awareness within Thailand of the dangers of a lack of organizational competitiveness. This led to an increased interest in the role of “strategic human resource management” in attaining and sustaining effectiveness in Thailand’s private sector. Strategic HRM seeks to design and align organizational processes with missions (e.g., Lawler and Sununta 1997; Sununta and Bechter 2005; Zhu et al. 2007).

Although globally education systems have increasingly adopted a strategic approach toward HRM (e.g., Barnett and O’Mahony 2008; Hallinger and Kamontip 2008; Huber and Pashiardis 2008; Walker and Dimmock 2006; Lim 2007), application of these principles in the Thai education sector is hardly evident (Hallinger and Bryant 2012). A system-level perspective toward development of principal capacity to lead reform is reflected in Fig. 22.1. This figure conceptualizes “principal quality” as shaped by a set of human resource processes that begin with recruitment and selection and cycle through to evaluation and professional development.

22.6 Qualification, Recruitment, Preparation, and Selection of Principals

The first phase in HRM is concerned with defining the desired competencies for a position and then recruiting and selecting candidates with those qualifications. Outside of Thailand, school systems increasingly recognize two essential facts. First, the new environment of education requires leaders with different capabilities. Second, the principalship is too important to the success of education reform to leave recruitment and selection of its occupants to chance (Brooking et al. 2003; Chapman 2005; Huber and Pashiardis 2008; Whitaker 2003; Walker and Dimmock 2006; Walker and Kwan 2009a, 2009b, 2012; Walker and Qian 2006).

The urgency of developing a cadre of capable school leaders has resulted in the development of more proactive, strategically aligned qualification, recruitment, and selection methods internationally (Brooking et al. 2003; Chapman 2005; Huber and Pashiardis 2008; Walker and Kwan 2012; Whitaker 2003). This is evident, for



Fig. 22.1 Strategic human resource management for enhancement of principal quality

example, in reformulated qualifications and standards for the principalship in Canada (Leithwood and Steinbach 2005), the USA (Murphy and Shipman 2003), the UK (Tomlinson 2003), Hong Kong (Walker and Kwan 2009a, 2009b, 2012), Australia (AITSL 2014), and Singapore (Lim 2007).

Similarly, the need to have an adequate pool of highly qualified candidates (i.e., not just candidates) for vacant principal positions has led school systems to take a more proactive approach to the recruitment of principal candidates (Brooking et al. 2003; Chapman 2005; Huber and Pashiardis 2008; Walker and Kwan 2009a, 2009b, 2012; Whitaker 2003). Succession planning, mentoring, and special programs designed to attract candidates with the desired characteristics have been initiated in many nations. Finally, education systems have given greater attention to the processes used to identify and select the best candidates from within the available pool of applicants. Traditional selection processes have, for example, been adjusted to increase the involvement of a broader representation of key stakeholders, rather than simply relying on senior administrators or exam results. This ensures a better match between the qualifications of the principal candidate and the distinctive needs of particular schools.

In contrast, the human resource processes that continue to predominate in Thailand evidence a “passive” approach to principal qualification, recruitment, and selection. There is neither a strategic vision of “desired principal candidates” nor an explicit attempt to ensure that qualification standards are aligned to the system’s evolving needs.

More broadly, the Ministry of Education makes no active effort either to identify or recruit the “best candidates” for open principal positions. Recruitment of candidates for job vacancies is entirely driven by the initiative of applicants. With this in mind, research has found that the qualifications of principals are, at times, actually and ironically lower than those of the teachers they lead (e.g., Boyd 2000; Chireg 1980).

In Thailand, the selection process for a vacant principalship is based on two main criteria. First and foremost is a multiple choice exam oriented toward knowledge of Thai education policies and management practices. Consistent with broader civil service practice, the exam result leads to the assignment of a number on a qualification list for each principal candidate.

Second, the candidate participates in a job interview held with Ministry of Education representatives. Discussions with informants familiar with the interview process suggest that the selection criteria employed in the interviews are both vague and applied inconsistently. In more practical terms, the interview is often employed as a means of moderating the black and white nature of the exam results. Indeed, the interview and subsequent selection decision are where “know who” comes into play to interpret the “know-how” of the candidate. Evidence of knowledge and skill in instructional leadership or other criteria plays no substantial part either in the test or in any other aspect of initial qualification.

With these modal approaches in mind, it comes as no surprise that Thailand’s education system has failed to fill these key positions with applicants who have the “right stuff” to provide capable and effective leadership for education reform. As a source within the Ministry of Education noted:

Part of the problem in recruitment and selection of qualified principals results from decentralization of authority to service areas [i.e., regional] committees. In the early phases of reform implementation, principal appointments were made without any consideration of prior experience. Many primary school principals used their influence to become the chair of the personnel management committee in their areas. Through this means, they subsequently received appointments to prestigious secondary schools. This led to resentment among secondary schools directors and the pressure to separate authority over the management of secondary schools from the service areas. Later on, the regulations were modified with stricter guidelines for appointments. But it had already set in motion new kinds of lobbying and influence exchange for positions. It should also be noted, however, that during the same period around 1000 deputies from secondary schools passed selection examinations to become directors of small primary schools and greatly upgrade the qualities of these schools, resulting in increasing number of small schools passing ONESQA’s assessments. (Anonymous source, personal communication, August 2015)

22.7 Principal Preparation

In many nations preservice principal preparation takes place prior to selection for a principalship (see Barnett and O'Mahony 2008; García-Garduño et al. 2011; Hallinger 2003; Hallinger and Lu 2013; Huber 2004; Walker et al. 2013). Indeed, in many contexts, the quality of preservice preparation is treated as a key selection criterion for a principalship.

The actual design of training curricula capable of preparing beginning principals has been the subject of extended discussion and inquiry internationally (e.g., Anthony and bin Said 2010; Barnett and O'Mahony 2008; Bolam 2004; Gamage and Pang 2006; García-Garduño et al. 2011; Hallinger 2003; Huber 2004; Lim 2007; Tomlinson 2003; Walker and Qian 2006; Whitaker 2003). There is a clear trend toward incorporating an instructional leadership perspective into principal preparation standards and curricula (Barnett and O'Mahony 2008; Bredeson 2002; Dinham et al. 2013; García-Garduño et al. 2011; Huber 2004; Murphy and Shipman 2003; Walker et al. 2013; Whitaker 2003). In addition, principal preparation programs around the world increasingly emphasize the active application of desired knowledge competencies (e.g., Bredeson 2002; Bush and Glover 2005; Bush and Jackson 2002; Dinham et al. 2013; Gamage and Pang 2006; Hallinger 2003; Hallinger and Lu 2013; Huber 2004; Walker and Qian 2006; Lim 2007; Walker et al. 2013). Thus, the didactic portion of the preparation curriculum is often blended with projects, coaching, mentoring, and networking activities in order to assist prospective and beginning principals in understanding how to apply leadership *in context* (Bredeson 2002; Grogan et al. 2009; Hallinger 2016).

In Thailand, mandatory "preservice" preparation is provided by a government organization *after* the principal candidate has been offered a position as principal of a particular school. Starting in the early 1980s, incoming principals were required to participate in formal preparation programs offered through a central training organization, the Institute for the Development of Educational Administrators (IDEA). The IDEA operated as a unit of the Ministry of Education and was responsible for all principal preparation and development programs in the country.² This approach contrasts with the USA, the UK, Australia, and Singapore, all of which rely, at least in part, on universities to assist in the design and delivery of principal preparation programs.

There is, however, no evidence that universities are more effective at principal preparation and development than government-operated units. Thus, for example, the National College for School Leaders in the UK has developed some impressive and highly innovative programs for preservice and in-service development. However, in Thailand, the reliance on this central training organization has, arguably, been an impediment to innovation and the development of the nation's

²In 2006 the IDEA was reorganized as the National Institute for the Development of Teachers, Faculty Staff and Educational Personnel (NIDTEP).

leadership capacity. Throughout the 1980s and 1990s, the predominant focus of IDEA’s programs was policy communication and implementation.

As asserted above, adoption of Thailand’s education reform legislation in 1999 changed the context and requirements for the principalship. In the period following enactment of the NEA, Gamage and Pacharapimon (2004) reported that 67.7% of their sample of principals felt that they were facing new challenges and changing role expectations without any clear training model in place. The principals voiced high levels of uncertainty regarding their role in the new institutional context. Consequently, the authors recommended more comprehensive training programs for school principals, especially in leadership and management (Gamage and Pacharapimon 2004, p. 301).

In the years that have passed, there has been some limited progress in developing the preservice preparation provided to Thai principals. In concert with the education reforms implemented at the turn of the century, the mission of the ministry’s administrative training unit (IDEA) shifted to a broader focus on educator development. This was reflected in its new name, the National Institute for the Development of Teachers and Educational Personnel (NIDTEP), adopted in 2006.

The mandated training curriculum is delivered through the Ministry of Education’s educator training unit. The program structure is shown in Fig. 22.2. The preservice program of preparation is comprised of 27 days of training. The training encompasses self-study, direct instruction, apprenticeship, and feedback. It should be noted that despite the explicit desire for principals to lead the development of student-centered learning in their schools, the modal learning methods used in principal preparation remain lecture and discussion (Koolchalee 2008). There are no published evaluations of the preparation experience offered to Thailand’s beginning principals. Moreover, both anecdotal and research-based evidences on the capacity of Thai principals to lead reform suggest that the current preparation experience remains a “weak treatment.”

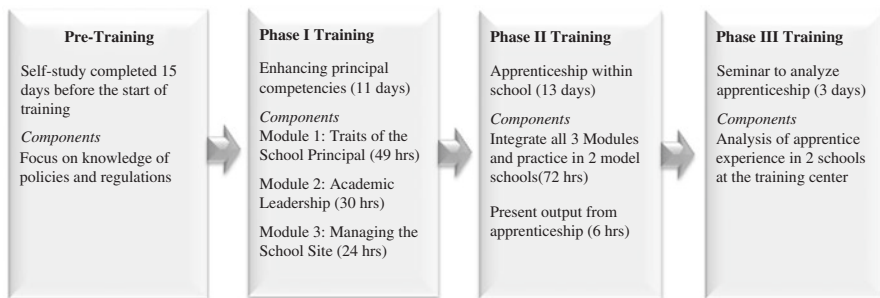


Fig. 22.2 Structure of Thailand’s preservice principal preparation

22.8 On-the-Job Support of Principals

The post-selection phase of entering a principalship involves induction, socialization, and on-the-job support. Approaches to the induction of new school leaders have undergone a sea change over the past 25 years throughout the world (Barnett and O'Mahony 2008; Bredeson 2002; Crow 2006; García-Garduño et al. 2011; Hallinger 2003; Huber 2004; Walker and Dimmock 2006; Walker and Qian 2006). Prior to the early 1990s, the USA was one of a relatively few nations where there was a professional qualification for the principalship. This was typically met through completion of a substantial program of preservice training in an approved university-based graduate degree and/or licensure program (Crow 2006; Grogan et al. 2009; Murphy and Shipman 2003).

The establishment of the National College for School Leaders (NCSL) in the UK in the mid-1990s represented a milestone in global human resource management in education (Bolam 2004; Bush and Glover 2005; Gamage and Pang 2006; Tomlinson 2003; Walker and Dimmock 2006). One of the innovations arising from program development at the NCSL was the formal, systematic extension of preservice training into induction and on-the-job socialization. Thus, in the UK new principals are routinely expected to be active participants in formalized networks of principals through which they receive collegial support and coaching (Bolam 2004; Bush and Glover 2005; Tomlinson 2003). This complements continuous professional development in which new and continuing principals are also expected to participate.

The UK is not, however, the only society where education systems have been changed to develop more systemic approaches to enable continuous development of leadership capacities among principals (Walker et al. 2013). Singapore's education system has employed collegial networks, coaching, and mentoring for principals for more than 15 years (Barnett and O'Mahony 2008; Choy et al. 2003; Lim 2007; Ng 2012). Networking and coaching have also been documented in various combinations and formats in Australia, Hong Kong, and the USA (Bush and Jackson 2002; Browne-Ferrigno and Muth 2004; Gamage and Pang 2006; Huber 2004; Walker and Dimmock 2006; Wildy and Clarke 2007).

In contrast to these formal approaches to principal induction and continuing professional development, in Thailand principal professional development can be characterized as ad hoc and short-term. Principals are neither expected to develop formal plans for personal professional growth nor are there requirements for professional development. So although principals do attend professional development programs, these tend to be linked to discrete projects. Moreover, it is common for principal participation to be mandated by superiors without specific regard to the individualized needs of principals.

Similarly, during the induction period, new principals are largely left to fend for themselves (Atit 2008; Koolchalee 2008; Monthol 2011; Parkay and Wirat 2001; Wirot et al. 2003). There are no formal programs of networking, coaching, or mentoring. This is not to say that networking does not take place but that it is informal and not explicitly linked to a personal plan of professional development or system goals.

22.9 Principal Evaluation, Reward, and Succession Planning

Other dimensions of a fully developed HRM system include performance evaluations, rewards, and important succession planning (Sparrow et al. 2004). These features of the management of principals as education professionals are designed to enhance accountability, stimulate performance improvement, reward success, and ensure that the education system will have a sufficient “density” of leadership capacity to carry on effectively in the future. Examples of how these features have been integrated into education systems have been described elsewhere (e.g., see Barnett and O’Mahony 2008; Chapman 2005; Choy et al. 2003; Clifford and Ross 2011; Davis et al. 2011; Fink and Brayman 2006; Goldring et al. 2009; Lim 2007).

There is, for example, an international trend whereby principal evaluations are being conducted using methods designed to enhance both performance accountability and capacity development (Clifford and Ross 2011; Clifford et al. 2012; Davis et al. 2011; Goldring et al. 2009). For example, in Singapore principal performance evaluation is a complex endeavor that employs both criterion-based and normative indicators. Criterion-based indicators use objective data that are derived from goals and indicators agreed upon by the principal and the evaluator (e.g., the area superintendent). Principals are evaluated based on ten competencies: self-confidence, communication, people management, working with others, judgment/organizational awareness, thinking skills, behavioral flexibility, service orientation, action management/initiative, and leadership/vision. Measures of these competencies are derived from 360 degree feedback collected from teachers, the principal, and the principal’s supervisor. Performance evaluation is linked to a system of performance rewards (Ng, 2014 December 29, Personal communication).

Similarly, in the USA and UK, the past 10 years have witnessed an increased use of principal evaluation systems that feature the use of extensive data on principal as well as school performance in making contract and placement decisions (e.g., Clifford and Ross 2011; Clifford et al. 2012; Davis et al. 2011; Goldring et al. 2009). Increasingly, these evaluations have consequences, in terms of salary increases and job retention (Atkinson et al. 2009; Clifford and Ross 2011; Davis et al. 2011). Thus, in the USA and UK, in particular, retaining one’s position as a principal is increasingly clearly linked to demonstrated results in the school’s performance.

In Thailand, performance evaluation and rewards continue to follow traditional Thai civil service practice. This means that performance appraisal, if and when it takes place, tends to be highly formalistic and aimed toward ensuring that all staff members receive high evaluations. In the case of school principals, there is neither annual goal setting nor any form of performance feedback. Essentially, job performance is decoupled from both rewards and sanctions.

This description is consistent with traditional Thai cultural norms that deemphasize overt behaviors that could threaten harmony in social relations (Persons 2016). Thus, in the Thai context, those conducting performance evaluations tend to avoid making judgments that differentiate the performance of individuals. Thai principals are civil servants with standardized salary adjustments and secure employment up to retire-

ment age. Rarely, if ever, have principals lost their positions once achieving their position. Thus, in the absence of meaningful consequences, the system of performance evaluation has received little or no attention as a tool for performance improvement.

Given this description of principal preparation, induction, professional development, and evaluation, it should come as no surprise that succession planning receives little attention. In some neighboring education systems (e.g., Hong Kong and Singapore), performance evaluation is used to assist in the identification of mentors for beginning principals. Internationally, the development of middle-level leaders is increasingly viewed as a responsibility of principals (e.g., Ng and Chan 2014; Rhodes et al. 2008; Walker and Dimmock 2006).

22.10 Conclusion

In this chapter, it has been suggested that 19 years after adoption of Thailand's landmark *National Education Act*, the human resource systems needed to support change in the capacity of Thailand's school-level leaders have failed to evolve. Simply stated, Thailand's system of human resource management in education remains rooted in a pre-reform, civil service model. With this in mind, it should come as no surprise that education reform in Thailand continues to lack the type of sustained school-level leadership needed to support fundamental change in teaching and learning (Gamage and Pacharapimon 2004; Hallinger and Lee 2011, 2013, 2014; Nonglak et al. 2004; Pattama 2004; Phungphol 2005; Pongsin 2001).

As noted above, during this same period, many education systems in the region and around the world have made dramatic changes in their approach to developing leadership capacity aligned to new educational goals and strategies. Indeed, models of *systemic human resource management* capable of finding, developing, and supporting school leaders with the "right stuff" exist both globally (e.g., in the UK, the USA, Australia) and regionally (e.g., in Singapore, Hong Kong). These models could be used to guide Thailand toward developing its own value-driven system of managing school leadership as a key human resource (Hallinger and Bryant 2012; Sooksan 2005; Zhu et al. 2007).

The author has suggested that the particular challenges of making education reform happen in Thailand are linked to cultural norms of the society. Personnel selection has emphasized "know who" over "know-how" to the detriment of the systemic capacity to lead reforms at the school level. Indeed, the same emphasis can be seen in the operation of the national training center, NIDTEP, itself. In its former incarnation as IDEA and today as NIDTEP, the institute has invariably been treated as a "second-class carriage" in the train carrying education reform forward. The author has personally witnessed over the past 25 years the directorship of the institute passed on to a series of "about-to-retire" civil servants with no particular expertise in human resource development and just as little interest in innovation or the unit's future. In one recent instance, the director's position was given to a civil servant with less than 6 months left before his own retirement.

Given this normative attitude toward the Ministry of Education's selection of leaders for NIDTEP, one should not be shocked by the relative ineffectiveness of its management of the development of school principals. Moreover, this lies in sharp contrast with the UK and Singapore where the directorship of government units with comparable missions is treated as a key post. Consequently, this position tends to be filled by individuals with "the right stuff" to make change happen.

Although some features of Thailand's cultural context are unique, the institutional challenges of education reform are quite similar to those faced by other developing countries in Asia (Hallinger 2010; ONEC 1998) as well as in other parts of the developing world (Fullan 2009; Lockheed and Levin 1993). Policymakers have sought to reorient the system focus from quantity to quality (e.g., Ampa and Sirikul 1998; Amornwich 2009; Fry 2002; Fry and Bi 2013; Mounier and Phasina 2009; Nattaphoj 2011; ONEC 1998, 1999; Pattama 2004; Rung 2001), adapt system goals to needs arising from changing social and economic conditions (Hallinger 2004, 2010; Hallinger and Lee 2011), and maintain cultural coherence in the face of globalization (Fry and Bi 2013; Hallinger 2004; Nattaphoj 2011; Rung 2001; Tan 2007). These features make Thailand's experience in education reform relevant not only to educators and policymakers in Thailand but also to other nations throughout the developing world.

Internationally, scholars have found precious few cases (if any) in which schools have improved without the catalyst of effective leadership (Louis et al. 2010; Malone 2013). An insufficient density of effective instructional leadership at the school level has been highlighted as a major structural cause for the slow rate of progress in education reform. However, rather than identifying principals as the problem, the analysis has refocused attention on system-level human resource process that have failed to evolve in concert with Thailand's visionary education policy reforms. Hopefully this will offer a clear target for the next generation of reforms.

Appendix A: Principalship Qualification Test Contents

General Knowledge (100 Points)

1. *Basic knowledge about laws those related to principal work*
 - 1.1 Government policy, national management plans and agendas
 - 1.2 Present situation in economics, culture, and politics
 - 1.3 Management theories
 - 1.4 King's sufficiency economy philosophy
 - 1.5 Education laws
 - 1.6 MOE management laws and regulations
 - 1.7 Teachers' council laws and regulations
 - 1.8 Personnel management laws and regulations

- 1.9 Administrative laws (administrative court, relevant public sector regulations)
 - 1.10 Data and education laws
 - 1.11 Children protection laws
 - 1.12 Good governance laws
 - 1.13 Laws and regulations those related to basic education
 - 1.14 English proficiency for working
2. *Abilities in Principal Duties*
- 2.1 Supervising subordinates
 - 2.2 Planning, developing, evaluating and reporting
 - 2.3 Creating and developing school curriculum
 - 2.4 Supporting formal, non formal and informal education systems
 - 2.5 Implementing the quality assurance system
 - 2.6 Financial budgeting and stock management
 - 2.7 Planning of human resources
 - 2.8 Managing teacher performance standards and performance evaluation
 - 2.9 Supporting teachers and personnel development
 - 2.10 Setting internal auditing control system
 - 2.11 Setting student assistance system

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Chapter 23

The Financing of Thai Education



Sirilaksana Khoman

Abstract The financing of education is seen as both a cause and possible remedy for the problems of access and equity. This chapter draws upon empirical data to examine how the provision of education achieves these goals, what reforms have been proposed, and the problems that remain. The data show that even though the distribution of education subsidies is less inequitable than the distribution of income, the burden of educational expenditures is disproportionately heavier for the poor. Tackling this problem calls for three types of public finance reform: redirecting spending toward activities in which government participation is most critical, increasing reliance on user and other benefit-related charges to finance such spending, and decentralizing some public responsibilities to those in closer touch with local needs and conditions. Better targeting of subsidies is needed, and if the country's resources are insufficient, then the introduction of fees for noncritical educational services should be undertaken. Better use of resources is also of critical importance to improve the system and achieve greater efficiency in financing. Also reform of the budgetary process should be accompanied by more innovative methods of service delivery to improve efficiency.

23.1 Financing as a Means Toward an End

Problems of quality and relevance as well as access and equity in education have been a concern in Thailand for several decades, with the financing of education seen as both a cause and possible remedy. Studies in the past (e.g., Chaiyuth et al. 2005; Chalongphob 1991; Cresswell 1999; Sirilaksana 1993a, b, 1997, 1999, 2003) have long advocated an overhaul of the financing of education – indeed, a system reboot. In fact, the National Education Act of 1999 pinned much hope on reform of education financing, a creative destruction of what was considered standard budgetary

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practice in Thailand (ONEC 2001). But reform was only partially embraced, and reform measures, though hardly regarded as a panacea in any case, were not fully implemented or tested. Consequently, the same problems that were apparent more than a decade ago persist today.

Public provision of education still dominates in Thailand. Thus, the nature and type of financing schemes and the level (or existence) of fees crucially affect the behavior of producers and consumers and influence the distribution of wealth and income in the country. Given prevailing inequalities, proper targeting is of utmost importance, because public provision can be distortionary if the beneficiaries of the system are not the truly needy. How spending is allocated and revenue raised determine whether a disproportionately heavy burden is placed on the poor. Public provision of educational services could also have regressive elements if wealth taxes such as property taxes, capital gains taxes, and inheritance taxes are low or nonexistent. These considerations have to be analyzed together, if educational benefits are to be reaped on an equitable basis and sustainable development accomplished.

This chapter focuses on the expenditures on education, the prevailing problems, and offers suggestions for the way forward.

23.2 Expenditures on Education

Thailand's spending on education is in line with Thailand's level of development measured in terms of per capita income. Figure 23.1 shows that Thailand's government spending on education of 7.6% of GDP is currently the highest among the ASEAN countries, overtaking Vietnam which registered the highest percentage back in 2012.

Thailand's government budget on education more than doubled from 2002 to 2014, increasing from 222,990 million Baht in 2002 to 518,519 million Baht in 2014 at current prices. Table 23.1 shows that the budget allocation for all levels of education more than doubled in the 12-year period.

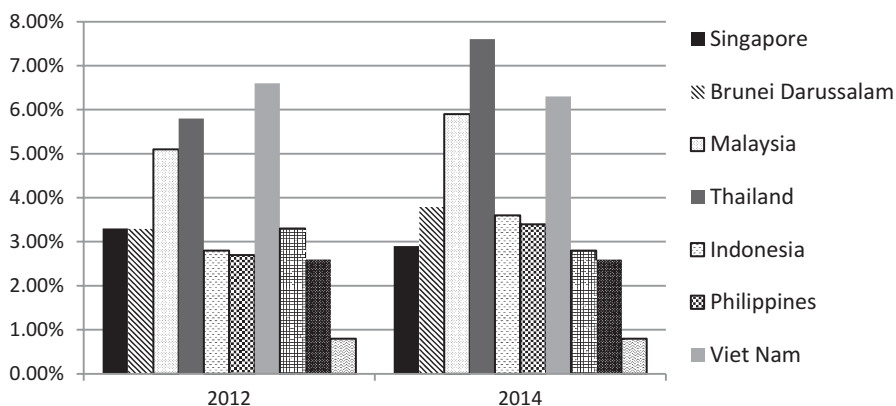


Fig. 23.1 Public expenditure on education in ASEAN countries (percent of GDP), 2012, 2014

Table 23.1 Educational budget expenditures by level of education, fiscal years 2002, 2013, and 2014

Level of education	2002	2013	2014
Preprimary and primary	98,065.00	228,878.90	239,293.45
Secondary education	53,859.00	139,284.37	144,263.67
Tertiary education	31,913.00	82,551.60	87,721.87
Education not definable by level	3379.00	2610.80	23,508.64
Subsidiary services to education	29,047.00	22,135.70	21,011.10
Education not elsewhere classified	6727.00	18,465.80	2720.33
Total educational budget	222,990.00	493,927.16	518,519.06

Source: Thailand. *Budget in Brief, Educational Statistics* (various years)

Table 23.2 presents estimated expenditures on education for both the public and private sectors. Both Table 23.2 and Fig. 23.2 show the dominance of public expenditure in the education sector, constituting more than 26% of the national budget and around 78% of total spending on education in the country. These figures have remained fairly constant over the years.

Household expenditures on education have increased over the period but still remain around 20% of total spending on education, while the nongovernmental sector and private business and corporations still play an extremely minor role.

It can also be seen in Fig. 23.2 that educational expenditures are protected in times of economic downturn, so that when GDP growth was negative in 2009 following the economic crisis in the United States and Europe, government spending on education still registered an upward trend, similar to what occurred in the past during the Asian financial crisis of 1997 (see Sirilaksana 1999). With negative GDP growth as well as falling private educational spending in 2009 and total government spending plummeting in 2010, it can be seen that public spending on education went against the grain and increased by 13% in 2009 and was maintained at an average of about 8% growth rate during the last 5 years (Fig. 23.3).

However, despite high spending and the obvious importance of education to the Thai government, numerous indicators show that Thailand's education system suffers from problems of quality and relevance as well as access and equity. These concerns are addressed here only as they relate to education financing.

23.3 Reform Efforts and Implementation

A key element of reform embodied in the National Education Act (NEA) of 1999 was an overhaul of the system of education financing. However, recommendations for reform were only partially embraced, and implementation haphazard, in spite of concerted efforts by reform-minded groups.

The salient features of reform included steps toward decentralization of decision-making and curriculum diversification, greater participation of stakeholders,

Table 23.2 Educational expenditures and key indicators 2008–2013 (at current prices)

	2008	2009	2010	2011	2012	2013
(1) Total education expenditure	560,479	604,873	656,440	683,231	762,005	802,449
(2) Public education expenditure	418,461	473,463	517,204	534,127	583,671	632,388
Rate of change (%)		13.14%	9.24%	3.27%	9.28%	8.35%
(2.1) Central government	341,817	385,495	424,949	436,236	474,790	510,296
(2.2) Local administration	76,644	87,968	92,255	97,891	108,881	122,093
(3) Private education expenditure	142,018	131,410	139,236	149,104	178,333	170,060
Rate of change (%)		-7%	6%	7%	20%	-5%
(3.1) Household education expenditure	137,714	126,715	134,311	143,929	168,410	163,651
(3.2) Private company education expenditure	636	788	1114	336	4777	1075
(3.3) Nongovernmental organization (NGO) education expenditure	3253	3526	3569	4535	4778	5047
(3.4) Rest of the world (ROW) education expenditure	415	380	242	304	369	288
(4) Gross domestic product (GDP)	9,706,932	9,654,016	10,802,402	11,300,485	12,354,656	12,910,038
Rate of change (%)	8%	-1%	12%	5%	9%	4%
(5) Total government expenditure	1,660,000	1,951,700	1,700,000	2,169,967.50	2,380,000	2,400,000
Rate of change (%)	5.99%	18%	-13%	28%	10%	1%
(6) Total education expenditure per GDP [(1)/(4)] (%)	5.77%	6.27%	6.08%	6.05%	6.17%	6.22%

(continued)

Table 23.2 (continued)

	2008	2009	2010	2011	2012	2013
(7) Public education exp. per total educ exp. [(2)/(1)] (%)	74.66%	78.27%	78.79%	78.18%	76.60%	78.81%
(8) Public education exp. per total government exp. [(2)/(5)] (%)	25.21%	24.26%	30.42%	24.61%	24.52%	26.35%
(9) Central government per total education exp. [(2.1)/(1)] (%)	60.99%	63.73%	64.74%	63.85%	62.31%	63.59%
(10) Local admin per total education expenditure [(2.2)/(1)] (%)	13.67%	14.54%	14.05%	14.33%	14.29%	15.22%
(11) Private education exp. per total education exp. [(3)/(1)] (%)	25.34%	21.73%	21.21%	21.82%	23.40%	21.19%
(12) Total education exp. per person per year (baht/person/year)	33,785	37,639	39,144	44,747	46,518	52,479
(13) Total education expenditure per person per year in USD	1032	1118	1276	1468	1497	1708
(14) Exchange rate (baht/USD)	33	34	31	30	31	31

Sources: Bureau of the Budget (various years), National Statistical Office (various years), National Economic and Social Development Board (various years), Chaiyuth et al. (2015) and calculation

empowerment of those groups of stakeholders traditionally omitted from the decision-making process, and rationalization of financing to effect appropriate empowerment, responsibility (including financial responsibility), and accountability. Such decontrol was envisaged as leading to the kind of flexibility that would be required to enhance quality and respond properly to the diverse education needs of the country.

The NEA contained important changes in financial, administrative, and pedagogical policies, but only the features related to financing are discussed here.

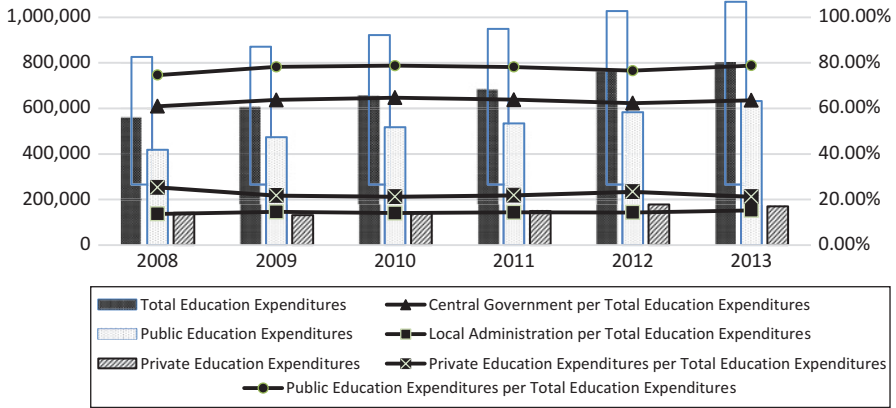


Fig. 23.2 Public-private share of educational expenditures. (Source: Plotted from Chaiyuth et al. 2015)

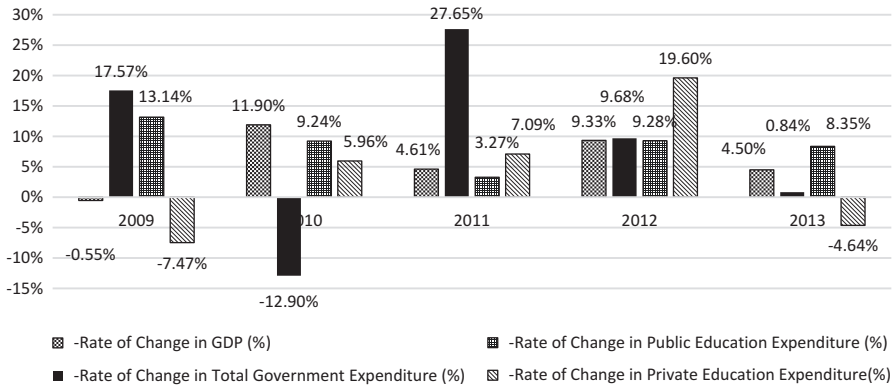


Fig. 23.3 Growth rates of GDP, total government expenditures, public educational expenditures, and private educational expenditures. (Source: Table 23.2)

23.3.1 Free Basic Education and Equity

One of the most important and far-reaching initiatives in the NEA was the stipulation that “all individuals shall have equal rights and opportunities to receive basic education provided by the State for the duration of at least 12 years. Such education, provided on a nationwide basis, shall be of quality and free of charge” (§10). “Basic education” is defined as “education provided before the level of higher education” (§4).

The NEA did not make upper secondary education compulsory but expanded the range of “basic education” through the secondary level and required 12 years of education to be free. This major policy change, with the associated budgetary implications, did result in greater “pro-poor” education expenditures. Analyzing the

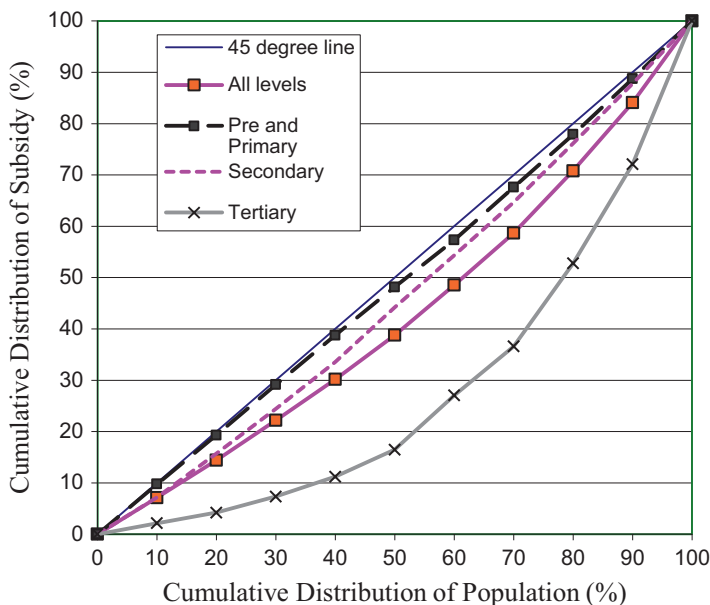


Fig. 23.4 Benefit incidence of government education spending

distribution of public expenditures on education across income groups using benefit incidence analysis, Chandee (2003) examined four different levels of education, preprimary and primary, secondary, vocational, and tertiary education, and found that income distribution, before and after the educational benefits, improved between 1996 and 2000. Total education spending had a positive effect on income distribution, and income inequality, as measured by the Gini concentration ratio, was reduced in both years. When considering expenditure by level of education, she found that expenditures on preprimary and primary levels had the most impact on income equality. Spending on vocational and higher education also led to more income equality but to a much lesser degree. When considering the effect of the change in educational budget on each income class, it was also found that an expansion of educational expenditures was likely to be pro-poor at the margin.

However, Chaiyuth et al. (2005) find that unit subsidies at the tertiary level average about triple those at the preprimary and primary level. Thus, households that are able to send their children to tertiary education receive larger in-kind transfers in terms of educational services from the government. When subsidies are distributed across income deciles, defined by household per capita income, the results are somewhat mixed.

The benefits of government expenditures on education accruing to different income groups are depicted in Fig. 23.4. The horizontal axis shows the cumulative distribution of households ranked by per capita income, while the vertical axis displays the cumulative distribution of educational subsidies. The concentration curves in Fig. 23.4 show the distribution of benefits that households receive from education

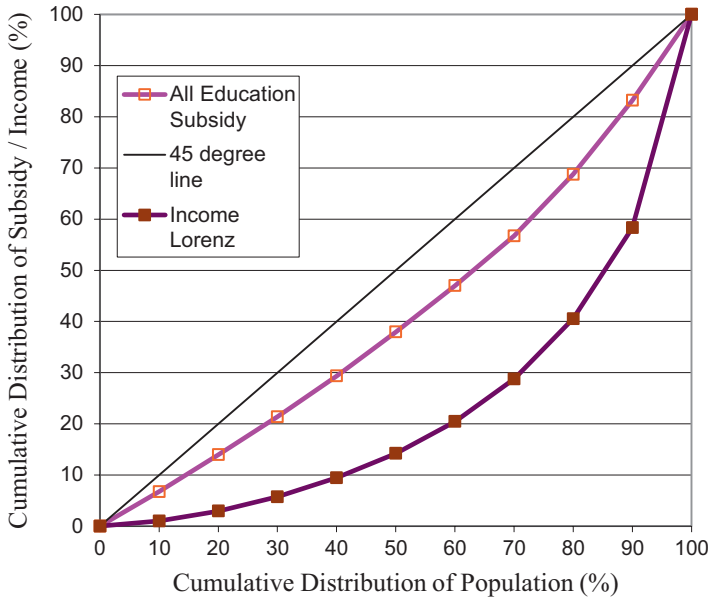


Fig. 23.5 Education subsidy concentration curve and income Lorenz curve

spending by the government. The 45-degree line denotes complete equality. It can be seen that the concentration curve for preprimary and primary lies very close to the 45-degree line, indicating that subsidies are well distributed and are slightly progressive up to the fifth income decile. The poorest 20% of the population received about 28% of total education spending, that is, more than their proportionate share. On the other hand, the concentration curve for secondary and tertiary displays a different pattern, diverging significantly from the 45-degree line. At the secondary level, subsidies were not progressively distributed, and at the tertiary level, education subsidies were in fact distributed very regressively (see Chap. 13). About 60% of education spending at this level was received by the top 3 income deciles, so education subsidies at this level are therefore pro-rich.

Free basic education, nevertheless, appears to have had a favorable effect on reducing inequality. In addition, when the concentration curve for all education levels is compared with the income Lorenz curve in Fig. 23.5, it can be seen that total educational subsidies are less regressively distributed than income, the concentration curve of total subsidy lying closer to the 45-degree line than the income Lorenz curve. However, with better targeting, subsidies could be even more pro-poor and better serve equity goals.

If we examine household expenditure (using the NSO Household Socio-Economic Survey (SES) data), we see that on average households spent about 1.6% of total expenditures on education in 2011 and 2013. This has declined from about 2.4% in 2002, as shown in Table 23.3 using the NSO definition of including all households. However, if we consider only those households with members still in school (here-

Table 23.3 Household monthly expenditures^a by category in 2011, 2013 (NSO definitions)

Expenditure category	2011		2013	
	Baht	%	Baht	%
Total expenditures	17,403	100.00	19,061	100.00
Consumption expenditures	15,328	88.08	16,787	88.07
Food and beverages	5660	32.52	6238	32.73
Alcoholic beverages	95	0.55	205	1.08
Tobacco	85	0.49	111	0.58
Clothing and footwear	494	2.84	483	2.53
Housing and furniture (including imputed rent)	3553	20.42	3652	19.16
Medical care	267	1.53	287	1.51
Personal care	572	3.29	572	3.00
Transportation and communications	3836	22.04	4410	23.14
Recreation and reading	293	1.68	328	1.72
Education	272	1.56	318	1.67
Miscellaneous	201	1.15	183	0.96
Nonconsumption expenditures ^b	2075	11.92	2275	11.94

Source: NSO, Socio-economic Survey (SES), 2011 and 2013

^aNot including investments in housing, land, valuable items, investment funds, etc.

^bSuch as taxes, gifts and contributions, insurance premiums, lottery tickets, interest on debt, and other similar expenses

Table 23.4 Average expenditures on education as a percentage of average income by income quintile and region, 2013

Revised definition income quintile	Region					
	BMR	Central	North	Northeast	South	Total
1 (poorest)	15.97	4.74	4.23	3.75	15.97	5.57
2	6.53	3.46	2.68	2.17	2.09	2.49
3	4.65	2.93	2.33	1.51	1.72	2.36
4	5.76	3.26	1.92	1.40	1.97	2.55
5	2.97	2.61	1.69	1.16	1.80	2.45
Total	4.50	2.99	2.10	1.53	2.06	2.59

Source: Calculated from NSO: SES 2013

after called the revised definition) and break the data down in more detail, we find that educational expenditures are not insignificant even with the free basic education policy and the burden on the lower-income groups is quite substantial.

Using the revised definition, it can be seen from Table 23.3 that educational expenditures as a percentage of income vary a great deal between income groups and region of residence. Expenditures on education for the poorest households in the Bangkok Metropolitan Region (BMR) and in the south appear to be a particularly onerous burden, making up almost 16% of all household expenditures (Table 23.4).

If we divide households into ten deciles from poorest to richest, it can be seen from Table 23.5 that large disparities exist. The proportion of household income

Table 23.5 Average household expenditures on education by income decile, 2013

Year	Education expenditure	Poorest decile	Fifth decile	Richest decile	All households
2013	Value of expenditure	349.19	1015.95	2531.39	727.67
	Proportion of income	17.75	2.46	2.40	2.59

spent on education varies inversely with the level of income. This indicates that even though high-income families spend more on education in absolute terms, these expenditures remain a smaller proportion of their income than in the case of poorer families. This can be taken to indicate that the “burden” of educational expenditures falls disproportionately on the lower-income groups. We can see from Table 23.5 that the poorest decile spends on average only 350 Baht per month on education, about 14% of what the richest households spend, but this small amount represents more than 17% of their monthly income, compared to only 2.4% for the highest-income group. Thus, even with free education, there are still large out-of-pocket expenses that need to be paid, not to mention lost employment opportunities while in school. Dilaka (2013) also finds that family wealth significantly affects the opportunities for learning and the educational attainment of youth in Thailand (see Chap. 13).

These findings reaffirm the need to target subsidies in favor of low-income groups. Identifying individuals or households that are “poor” may not be easy, given the data requirements, the prevalence of subsistence activities, underreported incomes, and the tendency for some groups to pass themselves off as “poor.” But other targeting methods can be used, including (i) geographical demarcation, whereby poor areas are defined for coverage (see Chap. 14); (ii) self-targeting, using variations in the cost and quality of services to induce self-selection; and (iii) targeting based on sociodemographic characteristics such as age, gender, occupation, and ethnicity if financial vulnerability is believed to be based on these characteristics.

Chaiyuth et al. (2015) find that the current allocation of resources for education from the government does not serve these equity goals. Figure 23.6 plots expenditures on education provided by the public sector to each province on the vertical axis and gross provincial product per capita on the horizontal axis. Even though high-income provinces like Bangkok appear to receive less government subsidies, we can see that a wide range of subsidy levels is received by low-income provinces clustered around 100,000 Baht per year.

23.3.2 Demand-Side Financing and Reform of the Budgetary Process

Before October 1997, resources and decision-making regarding government services flowed from the central government. The Constitution of October 1997, widely hailed as “The People’s Constitution,” stipulated mandatory stakeholder participation in government, checks and balances, and accountability (Klein 1998).

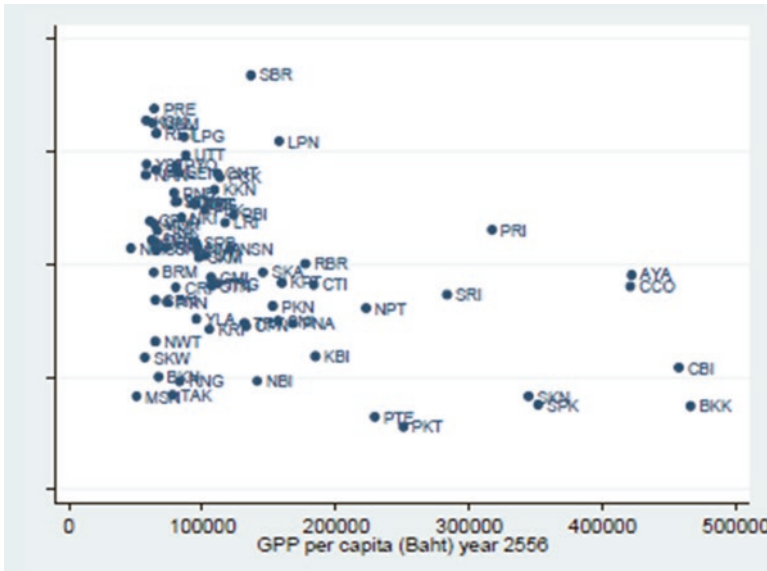


Fig. 23.6 Government education subsidies by province, 2013. (Source: Chaiyuth et al. 2015)

The 1999 NEA reflected the spirit of the Constitution and emphasized accountability, results-based management, and decentralization of decision-making and financing in line with the ongoing decentralization policy.

The evolution of educational administration, schematically represented in Fig. 23.7, was intended to go hand in hand with a reformed civil service. The objective was to move from a centralized educational system where decisions are made and personnel deployed from the center to a more inclusive system, with participation from societal groups, local bodies, and community organizations as represented in Fig. 23.8.

The NEA provided for a major shift in the process for allocating subsidies toward providing lump sum amounts based on student count.

Distribution of general subsidies for per head expenditure commensurate with the needs of those receiving compulsory and basic education provided by the State and the private sector. These grants shall be distributed on an equal basis (§60).

This was seen as an opportunity to reform and restructure an antiquated school funding model. The use of vouchers allocated directly to the students for use at any public or private educational institution was considered but not implemented, as it was considered that the per head allocation would basically have the same effect. A voucher system of course can be a mere accounting procedure, with the government transferring to each school an amount determined by multiplying the number of students enrolled by the appropriate per head amount for each level. And this was the path that was chosen for administrative convenience.

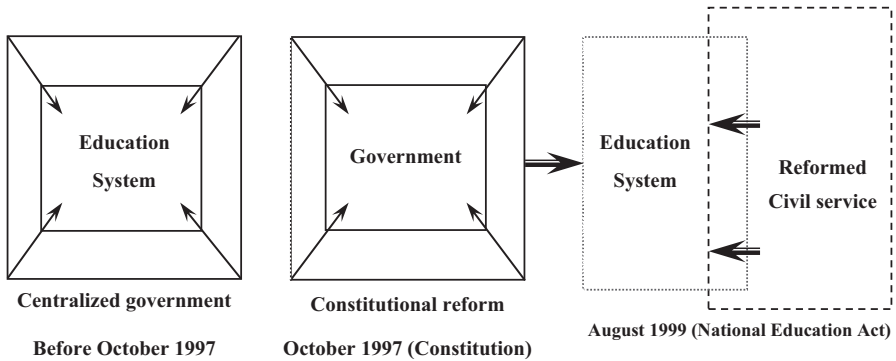


Fig. 23.7 Evolution of educational administration

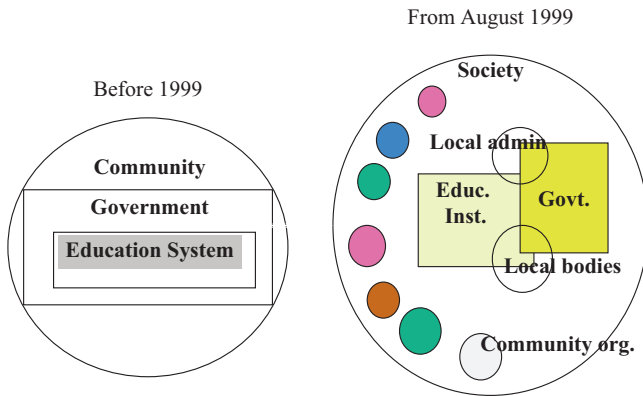


Fig. 23.8 Intended relationships among the education system, government, and society

The new allocation system was expected to expand opportunities for attending both government and private schools. The intention was to inject competition into the provision of education and to end the government monopoly on education. It was believed that where private alternatives exist, this allocation system would force public facilities to improve performance and ensure consumer satisfaction. It was also envisaged that there would be “equalizing grants” to take into account greater need, which may be due to location, learners’ disabilities, or outstanding abilities.¹ Studies were conducted to provide guidelines for formula funding, primarily based on factors not manipulable by schools (Dow et al. 2005), but this was not implemented, after only 1 year of trials and training of school administrators

¹The NEA stipulates that “persons with physical, intellectual, emotional, social, communication and learning deficiencies, those who with physical disabilities, and those destitute or disadvantaged or specially gifted; shall have the right to receive basic education similar to that provided for others or in appropriate forms in line with their needs and competencies as stipulated in ministerial rules” (Chap. 2, § 10).

Table 23.6 Salary component in operating expenditures for fiscal years 2002, 2013, and 2014 by level of education

Level of education/ academic year	2002			2013			2014		
	Operating expenditures			Operating expenditures			Operating expenditures		
	Salary	Others	Total	Salary	Others	Total	Salary	Others	Total
Preprimary and primary	75.28	24.72	100.00	85.87	14.13	100.00	85.74	14.26	100
Secondary education	62.69	37.31	100.00	27.18	72.82	100.00	27.96	72.04	100
Tertiary education	49.20	50.80	100.00	25.15	74.85	100.00	22.12	77.88	100
Education not definable by level	39.11	60.89	100.00	34.98	65.02	100.00	0.00	100.00	100
Subsidiary services to education	–	100.00	100.00	–	100.00	100.00	19.99	80.01	100
Education not elsewhere classified	38.74	61.26	100.00	20.39	79.61	100.00	34.64	65.36	100
Total	57.06	42.94	100.00	53.18	46.82	100.00	52.41	47.59	100
Basic education	71.02	28.98	100.00	63.87	36.13	100.00	64.07	35.93	100

who merely had to key in the required information in a ready-made computer software program.

In fact under the existing system, much of the allocation is actually based on, or strongly influenced by, school enrollments. For example, the number of teachers to which a government school is entitled is based largely on enrollment and class-size standards, as is the size of budget for many routine expenses and lunch programs. Subsidies for private schools are allocated on a per capita basis as well. Funds for special programs, quality improvements, and capital investment are allocated more on a case-by-case basis, but these make up a relatively small proportion of the budget. In fact the largest determinant of current budget allocation per head is the composition of the teaching staff in terms of qualifications and length of service, since the single most important cost category in education is salaries.

The situation has improved somewhat as shown in Table 23.6 where the proportion spent on teachers' salaries declined from 71% for basic education in 2002 to 63.9% and 64.1% in 2012 and 2013, respectively. The high proportion devoted to salaries is not a problem per se. Rather, it is the built-in rigidity that does not allow room for maneuvering that is the issue. Teachers' salaries are not included in the lump sum subsidy to schools, and therefore the autonomy that was envisaged for schools in personnel management did not materialize. Since the most experienced, well-qualified teachers are allocated to the "better," usually urban schools, this fails to advance the cause of equity and "quality education" for all.

Additional issues that were encountered included the problem that grants were not sufficient to induce private sector initiatives, and the goal of fostering competition was basically not achieved beyond what already existed. The recommended system had the potential to shift attendance patterns among schools, by providing some additional opportunity for choice. Students could seek places in the more

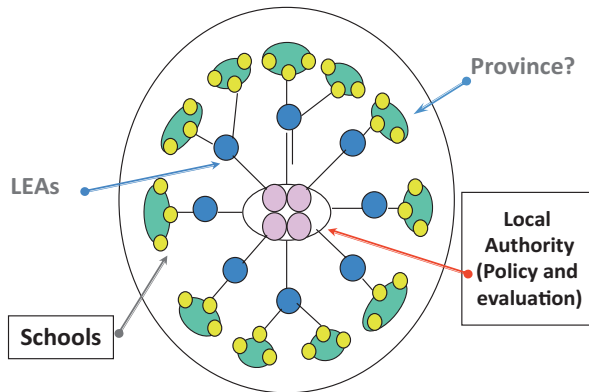


Fig. 23.9 Decentralization of authority

desirable government schools or private schools which would otherwise be unaffordable. But the opportunity for choice was illusory since no actual alternatives were available within a reasonable distance for a large number of households.

23.3.3 Decentralization, Resource Mobilization, Stakeholder Involvement, and Autonomy

The provisions for increased budgetary and administrative autonomy in schools included a number of decentralization initiatives, particularly in higher education institutions. Resource mobilization and stakeholder involvement were also considered essential, especially at the basic education level.

The budget allocation method based on unit costs would have had important implications for teaching staff management, since the concept implies that the allocation to schools would be a lump sum, rather than the existing mix of in-kind and category-based allocations. Ultimately, it was envisaged that staff would no longer be allocated to schools from a central authority but would be hired at the local level, using local budgets that would combine contributions from the central government as well as funds raised from the local community. This would have altered the entire personnel management system and shifted the control of local financial decision-making from the center to the local level.

In the model of proposed decentralization, represented in Fig. 23.9, local education areas (LEAs) within each province² would have jurisdiction over local schools to provide resources and make decisions regarding teaching staff as well as other

²Even the idea of local education areas having a different geographical area from provincial or other administrative demarcations was adopted, so that the education authority would not be subject to influence from political or other government leaders and serve the best interest of the community. These local areas were eventually termed educational service areas (ESAs).

personnel. A local authority would coordinate with the central government regarding policy and evaluation. Stakeholders in the area would be encouraged to participate in decision-making as well as contribute to the schools.

The involvement of stakeholder interests in decision-making had long been advocated, as schools themselves are in closer touch with the needs of the “clients,” namely, students (and parents) and some employees and employers, than centralized government agencies. What was required was a transition phase during which educational institutions and local authorities would familiarize themselves with, and become accustomed to, the greater financial and administrative autonomy and consequently also be accountable for their decisions. Many schools were naturally not ready for autonomy and needed to be assisted with interim measures, such as targeted training with practice kits and formation of school networks with fiscal incentives, whereby high-quality schools could help less advantaged schools in the network. Such financial and administrative reform could have improved access, quality, as well as resource use. However, plans were not fruitfully implemented, mainly because interim measures were not devised. Teachers complained of the chaotic situation and opposed their salaries being included in the per-head allocations.

Ultimately decentralization is intended to achieve quality improvement through better performance of personnel, improved incentives, and elimination of waste and inefficiency caused by a highly structured overly centralized administrative system. But decentralization by itself is no panacea. It is not a valuable public policy simply because existing public systems are inadequate. Decentralization of services, management, and service delivery may be desirable, but ideas need to be translated into workable solutions that result in actual improvement in the delivery of services and efficiency.

The crucial issue is to address what functions or activities should be decentralized and how the process of decentralization can be effectively carried out. For example, should everything from personnel, procurement, to budgetary decisions be devolved from the center? Are there any activities that have demonstrable economies of scale and would be better done in a centralized fashion? Should the creation and maintenance of a complete and timely information system come under the central authority? How can success or failure be measured? The careful studies that would have been required to answer these questions were not undertaken.

And there are obstacles to overcome, such as resistance to the redistribution of political power and the empowerment of disadvantaged groups.

In terms of resource mobilization, the NEA contains provision for mobilizing resources from the government, local administration, and organizations, as well as from the private sector. However, voluntary contributions have been minimal as can be seen from Table 23.2 above. Nevertheless, the aim of these initiatives was not so much to reduce the burden on the central government but to mobilize local and community resources to foster a perception of ownership and involvement in education. The common perception is that education is the government’s responsibility. Involvement of parents, local authorities, and the community more directly in the

financing of the schools enhances their overall commitment to education, which should in turn lead to overall quality improvements.

23.4 The Way Forward and Stumbling Blocks

The financing of education (or any government service) requires that social benefits and costs are closely aligned, so that the goals of efficiency and equity are achieved. In principle, this would mean a complete package of differential fee structures to reflect social costs and benefits, and deregulation, with student loans taking the place of government control. A policy direction toward direct subsidies through vouchers to students rather than the school may better empower students and parents.

In general, tackling the problems identified above calls for three types of public finance reform:

- (a) Redirecting spending toward activities in which government participation is most critical, which in the case of education would be preprimary, primary, and special needs education (which includes education for the gifted and talented, as well as the poor and/or otherwise disadvantaged or vulnerable). In economics parlance, these are the areas where *externalities* (benefits to the rest of society) are greatest.
- (b) Increasing reliance on user and other benefit-related charges to finance such spending, which would allow greater targeting of benefits to critical areas or groups.
- (c) Decentralizing some public responsibilities to those in closer touch with local needs and conditions. This would involve not only budgetary reform which has already been implemented but also a set of governance mechanisms to ensure transparency and accountability. Common complaints among teachers opposed to decentralization include nepotism at the local level. Thailand is currently in the process of enacting a “conflict of interests” law, and if this is properly implemented and enforced, this problem can be addressed.

Reform efforts in Thailand have moved the system somewhat closer to these goals. But the whole spectrum of measures needs to be considered as a package: increased user charges (at some levels), student loans, scholarships for the truly needy, and/or bonding (which, in effect, is a subtler kind of loan), with full subsidies to those in dire need.

It has to be recognized that in some cases, efficiency considerations favor a greater burden of the cost of education being placed on certain households, namely, the non-poor. Charging cost-based user fees for services that have large benefits accruing only to the individual would result in efficiency in both production and

consumption. In addition, the additional resources can be used to finance the expansion of priority services, many of which are used primarily by the poor. Subsidizing mobile rural services, for example, is one way to give the poor access to services, with at least part of the cost borne by others. Such fees lead to gains on all fronts: the supply of publicly provided goods and services is allocated more efficiently, the reliance on fees avoids the need for distortionary taxes, and at the same time equity goals are served.

Reform of the budgetary process should actually be accompanied by more innovative methods of service delivery to improve efficiency. Very small schools are costly because resources, and particularly personnel, are deployed according to a strict formula (see Chap. 13). Some schools with only 20 students have seven teachers because one teacher is required for each grade, plus one teacher as an administrator. Combining classes (with older students coaching the younger ones), mobile “delivery” of lessons and field trips to larger schools, more innovative distance learning techniques, and Internet use plus sister school networking would help reduce costs. Small schools that are not in remote areas should be closed, and transportation provided for the children to attend larger schools. Formula funding should be used, taking into account not only the number of students but also other variables such as needs based on geographical location, per capita income levels, student characteristics, as well as innovative initiatives in service delivery and programs offered.

In principle, noncritical services should not be subsidized but instead be charged to those receiving the services, unless there are special considerations. The charges can then be earmarked to finance the expansion of priority services while increasing rather than decreasing efficiency (and equity). Publicly provided goods and services will be used efficiently if they are priced to reflect the cost of production as well as externalities and other market imperfections. In contrast, subsidized (or underpriced) services result in excessive consumption and excess demand, and the taxes needed to pay for such subsidies often create distortions elsewhere in the economy. User charges lead to a double efficiency gain: they allocate the supply of public goods and services efficiently, and their use avoids the need for distortionary taxes.

Benefit incidence analysis indicates that educational subsidies are less inequitable than income distribution. But inequity is still prevalent in the system, and a disproportionate burden is placed on the poorest groups. Better targeting of subsidies is needed, and if the country’s resources are insufficient, then the introduction of fees for noncritical educational services should be undertaken. In addition, even with the resources allocated, it is not uncommon to see inefficiency in resources used in the system. Cosmetic items such as flower arrangements and decorations for festivals use up resources, while there is underinvestment in safety and learning materials and at the same time overinvestment in inappropriate gadgetry items like tablets that were soon discarded. Thus, a better more effective use of resources is also of critical importance to improving Thailand’s educational finance system.

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Chapter 24

Educational Testing, Assessment, and Quality Assurance



Somwung Pitayanuwat, Samphan Phanphruk, and Tan Pitayanuwat

Abstract The 1999 National Education Act emphasizes the importance of educational testing, assessment, and quality assurance in Thailand. This led to the establishment of two public organizations, namely, the Office for National Education Standards and Quality Assessment (ONESQA) and the National Institute of Educational Testing Service (NIETS) by Royal Decree in 2000 and 2005, respectively. The objective of this chapter is to provide an overview of educational testing and assessment at the national level in Thailand and to examine the roles and achievements of both ONESQA and NIETS. It was found that in the third round of external quality assessment, the certification rates of educational institutions at the basic education, vocational education, and higher education levels were 62.1%, 79.7%, and 97.3%, respectively. The median O-NET scores of students in Grades 6, 9, and 12 were 45.3%, 40.9%, and 35.6%. The students were found to have rather low O-NET scores in the important subject areas of mathematics and English language. Finally, a futures research methodology introduced by the late Professor Robert B. Textor (1980) was used to assess the future of ONESQA and NIETS.

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24.1 Introduction: Overview and the Evolution of Testing in Thailand

This chapter provides an overview of how Thailand has tested its students and assessed the quality of its educational system with an analysis of the roles of the Office for National Education Standards and Quality Assessment (ONESQA) and the National Institute of Educational Testing Service (NIETS), two public organizations established by Royal Decree in 2000 and 2005, respectively.

The development of national examinations, assessments, and basic education quality can be classified into seven eras as follows (Somwung et al. 2013):

1. Student's quality assurance by final school examinations (1884–1934).
2. Student's quality assurance by public national examinations (1935–1977).
3. Student's quality assurance by the school examination and national assessment conducted by the Department of Curriculum and Instruction, Ministry of Education (1978–1998).
4. Student's quality assurance by school examination and national assessment conducted by the Department of Curriculum and Instruction, Ministry of Education. At this point, educational quality assurance at the basic education level was also included (1999–2004).
5. Student's quality assurance by the school examination, national assessment conducted by the Ministry of Education, as well as the educational quality assurance and examinations at the national level conducted by the National Institute of Educational Testing Services (NIETS) (2005–2011).
6. Student's quality assurance by school examination (70–80%), examinations at the national level (20–30%), and national assessment conducted by the Ministry of Education. Educational quality assurance has been included (2012–2015).
7. Student's quality assurance by school examination (50%) and the national examination (50%) in which all aspects of learners will be tested. Educational quality assurance is included (2016–present).

24.2 External Quality Assessment of Educational Institutions

24.2.1 *Establishing the Office for National Education Standards and Quality Assessment (ONESQA) (ONEC 2001)*

As stipulated in Section 81 of the 1997 Constitution of the Kingdom of Thailand, a national education law was mandated, hence, the drafting of the 1999 National Education Act (NEA), which became effective on August 20, 1999. Chapter 6 of the Act on Education Standards and Quality Assurance required the establishment of the Office for National Education Standards and Quality Assessment (ONESQA),

enjoying the status of a public organization. The announcement for the establishment of the Office was published in the *Government Gazette*, Vol. 117, Section 99A on November 3, 2000. The Office became operational on the following day.

As in other organizational contexts, educational provision requires administrative and managerial principles for the entire cyclical functioning. It has been well recognized that evaluation is indeed an essential step to provide feedback information, which then becomes the basis for assessing the extent to which targets and goals have been achieved. It also enables leaders to identify weaknesses or problems for which remedial measures are needed so as to facilitate subsequent planning and actions required to achieve goals more effectively and efficiently.

Hence, it is crucial that the importance of evaluation be recognized, particularly quality assessment by an external and neutral body. Such a mechanism should provide meaningful assessment. It also gives all agencies responsible for education provision from those at the national level to the smallest units, i.e., educational institutions and local schools, incentives for self-evaluation so that the quality of education can be continuously enhanced.

Quality education is, in fact, a required public service provided by the state, which has to provide such education to all people. The state, therefore, is entrusted with the responsibility for offering education responsive to the needs of the direct beneficiaries, i.e., students and parents, as well as those of indirect beneficiaries, i.e., enterprises, the public, and the society as a whole. For such provision, the state necessarily has to assess how far it complies with the national educational policy and how far it serves the needs of the consumers of education or different groups of potential beneficiaries.

An external quality assessment agency needs to be a public organization, enjoying the status of a state body, which is neither a government office nor a state enterprise, in order to achieve highest efficiency. With complete autonomy and power in decision-making for its administrative, managerial, and financial affairs, it has the flexibility to carry out the assigned tasks more efficiently than if it were part of the usual bureaucratic line of command.

Besides, not being under the obligation of reporting to the agencies in charge of education, ONESQA enjoys complete neutrality and integrity; there is no outside pressure to distort the assessments, resulting in genuine checks and balances. External quality assessment is a public service for capacity building to assess the extent to which the education, required by learners, the society, and the state, meets the desired quality standards and goals.

24.2.2 Objectives

Section 7 of the 2000 Royal Decree stipulated that the objectives of the office shall be the development of the criteria and methods of external assessment of the outcomes of educational provision in order to ascertain the quality of educational institutions, taking into the account the aims, principles, and directions for provision of

each level of education as stipulated in the 1999 National Education Act. The quality assurance of all educational institutions is delivered through their obligation to undergo an external assessment at least once every 5 years. Quality assessment is an educational process providing learners, parents, community, and society with confidence and assurance of the educational institution's ability to offer services of the quality and standards required. The collective efforts of the state and private sector should be beneficial to the development of educational quality and the enhancement of Thailand's competitiveness in the world community.

24.2.3 Vision

The Office for National Educational Standards and Quality Assessment (public organization) is an academic body specializing in the evaluation of educational quality. It has the objectives of enhancing the quality of the education provision system in Thailand, enabling educational institutions to provide quality education to learners, who will be endowed with virtue, competence, and happiness.

24.2.4 Mission

ONESQA is established for the purpose of developing the criteria and methods for external quality assessment and for examining educational achievements in order to assess the quality of educational institutions, bearing in mind the objectives, principles, and guidelines for educational provision at each level as stipulated in the 1999 NEA. The assessment outcomes will be duly submitted to the agencies concerned and the general public. The mission stipulated in the Royal Decree establishing the Office includes:

1. Development of an external assessment system: setting of the framework, directions, and methods for efficient external assessment in line with the quality assurance system of the educational institutions and the agencies to which such institutions are attached.
2. Development of standards and criteria for external quality assessment.
3. Certification of external assessors.
4. Supervision and setting of standards for external assessment carried out by external assessors as well as certification of the standards. Out of necessity, or for the benefit of study and research for development of the external assessment system, the Office may carry out an external assessment itself.
5. Development and training of external assessors, preparation of the training course content, and recruitment of private, professional, and academic bodies to participate in the training of external assessors for improved efficiency.

6. Submission of an annual report on educational quality and standards assessment to the Council of Ministers, the Prime Minister, and the agencies concerned for consideration for policy formulation and budgetary allocation for education as well as dissemination of the report to other agencies involved and the general public.

24.2.5 *Quality Assurance System and Amicable Assessment*

To meet the requirements of the 1999 National Education Act, an educational quality assurance system has been designed and implemented. It consists of both internal and external quality assurance.

Internal quality assurance is regarded as part of institutional administration which must be a continuous process. Educational institutions are required to prepare annual reports that are to be submitted to parent organizations and the agencies concerned. These are also to be made available to the public for the purpose of improving educational quality and standards and providing a basis for external quality assurance.

External quality assurance is the responsibility of the Office of Education Standards and Quality Assessment (ONESQA). External quality assessment is rather new to the staff of educational institutions in Thailand. They are not used to “being investigated” by outside assessors. The assessor should behave in a friendly manner in dialogue with staff on weak points or on areas of great concern. The assessment should utilize a friendly non-threatening approach called “amicable assessment”.

The amicable assessment model prescribes working with education institutions by:

1. Creating a good perception and preparing them to be ready for external quality assessment.
2. Creating faith in the external assessor and developing an intimate and friendly relationship between the assessors and members of the institutions by advising assessors to practice Buddha’s teaching on the qualities of *kalayanamit* (กัลยาณมิตร) or a true friend:

piyo (ปิโย): lovable and endearing

garu (गरु): esteemable, respectable, and venerable

bhavaniyo (ภวานิโย): adorable and cultured

vatta ca (วัตตาคะ): being a counselor

vacanakkhamo (วาจนักขโม): being a patient listener

gambhiranca katham katta (กัมภีรัญจะ กถังกัตตา): able to deliver deep discourse or to deal with profound subjects

no catthane niyojaye (โน จฏฐาน นิโอชช): never exhorting groundlessly, not leading, or spurring on to a useless end

3. Performing realistic assessment in order to improve standards and blending professional, empowerment evaluation and conformity assessment together in an external quality assessment.
4. Sincerely helping and supporting institutions to attain quality; honestly and frankly reporting assessment outcomes and noting their successes; and identifying weak and strong points in order to advise institutions on how to improve their quality. The assessment results must be submitted to the relevant agencies and made available to the general public. For the introduction of an effective quality assurance system, the two major tasks that need to be accomplished are (1) the development of a quality assurance system and (2) the development of educational standards at the national level.

24.2.6 Operational Guidelines for External Quality Assessment

1. External quality assessment is free of charge; the state will take care of all the costs of the assessment.
2. External quality assessment at the basic, vocational, and higher education levels is all under the same umbrella, ONESQA.
3. ONESQA is an autonomous public organization reporting directly to the Prime Minister of Thailand. The reasons are to be independent from the bureaucratic system and to be able to assess both government and private educational institutions fairly and neutrally.
4. The system of external quality assessment is not to provide a verdict of right or wrong doings or checking on educational institutions but to be utilized as a tool for improvement along with the implementation of educational decentralization.
5. ONESQA shall develop the external assessment system and set the framework, directions, and methods for efficient external assessment in line with the quality assurance system of the educational institutions and agencies to which such institutions are attached (ONESQA Royal Decree Section 8 (1)).

24.2.7 External Quality Assessment Budget

ONESQA, as a public organization, receives its funds from the national budget each year. The ONESQA budget is shown in Table 24.1.

Table 24.1 shows the external assessment budget of ONESQA ranging from 363.369 million baht or 10.958 million US dollars in the budget year of 2010 to 754.635 million baht or 22.757 million US dollars in the budget year of 2014. For the 6-year period, 2009–2014, ONESQA received funding from the national budget

Table 24.1 ONESQA funding from the national budget by budget year, 2009–2014

Budget year	National assessment budget		% of Ed budget
	Thai Baht	USD	
2014	754,635,000	22,757,388	0.15
2013	753,051,700	22,709,641	0.16
2012	431,063,700	12,999,508	0.09
2011	412,646,200	12,444,095	0.10
2010	363,369,100	10,958,054	0.09
2009	423,098,800	12,759,312	0.12
Average	522,977,410	15,771,333	0.12

of 522.977 million baht or 15.771 million US dollars or 0.12% of the total annual education budgets for those 6 years.

24.2.8 External Quality Assessment (Somwung 2007, 2009a, b)

The ONESQA staff visit and learn from international quality assurance agencies, universities, and colleges to review how they are fulfilling their responsibilities. ONESQA then adapts and shares experiences for improving and developing quality assurance processes for use in Thailand. In the basic education area, ONESQA cooperates with the New England Association of Schools and Colleges, Inc. (NEASC), USA; the Council of International Schools (CIS), USA; and the Western Association of Schools and Colleges (WASC), UK, to share and learn from each other with respect to quality assurance standards. In vocational education, ONESQA learns from the framework of the Adult Learning Inspectorate (ALI) as well. ALI is a nondepartmental public body. It is responsible for inspecting the quality of education and training for adults and young people in England, raising standards and reporting its findings back to both the Secretary of State for Education and the public.

Thailand also shares and learns from the Quality Assurance Agency for Higher Education (QAA), UK, as it carries out the work of ONESQA. Thailand began a process of reform of higher education when the Ministry of University Affairs (MUA) prepared the first 15-year Higher Education Plan covering the period 1990–2004. The 8th National Higher Education Plan for the period 1997–2001 indicated that one of the six main policy directions would relate to quality and excellence. New quality assurance policies and guiding directions were announced in July 1996, and these stipulated that all universities improve and enhance their efforts for achieving quality of instruction and an appropriate academic learning environment. All higher education institutions are expected to establish quality management systems and work consistently to improve their performance. The baseline for Thailand's quality assurance framework lies in the establishment of standard criteria and requirements for all levels of degree program offered in the country. The



Fig. 24.1 An ONESQA assessor at Vajiravudh “College” (school known for its excellence in music and sports) (Photo courtesy of Dr. Somwung Pitayanuwat and Vajiravudh College)

quality assurance system consists of both internal and external quality assurance. The internal and external quality assurance aims at creating a system and mechanism to control, audit, and assess operations of institutions to comply with each institution’s policies, purposes, and levels of quality established by the institution and/or governing authorities.

ONESQA encourages the institutions it assesses to enhance continuously their educational quality and achieve efficient educational administration. ONESQA uses an amicable assessment model which focuses on assessment conducted in a spirit of care and concern, based on professional ethics, for enhancing educational quality and standards (see Fig. 24.1). External quality assurance can be classified into three levels: basic education, vocational education, and higher education. Each institute is to submit data and a self-review report to ONESQA before being subject to an external assessment visit. A team of external reviewers then make the visit to schools or campuses according to a predetermined schedule. After the visit an evaluation report together with findings and recommendations will be sent back to the institution. The first review cycle (2001–2005) was to encourage all institutions to present their actual performance and statistical data together with their institutional review report that reflect their own IQA system. The assessors, as part of their accreditation process, conduct site visits and use a descriptive method. The second round (2006–2010) is to certify the quality standards of the institution. The assessors will use quantitative methods and the assessors act as a peer review panel. ONESQA has identified “magic” strategies for external quality assessment, which it deems will return the best and most reliable results and meet the needs of all parties:

1. Have an understanding of the educational institution before the site visit, through careful review of the self-assessment report (SAR), annual report, and other related documents.
2. Conduct quality assessment using the cause and effect method, which indicates whether an educational institution is quality assured or not according to the standards determined by ONESQA.
3. Assess the actual state of affairs: mechanisms + context → outputs/outcomes.
4. Theory-driven evaluation: predict and prevent is far better than find and fix.
5. A team of at least two assessors or “school doctors” should work in unity under the same quality assessment standards (team up and pair off approach).
6. Utilize the quality case study method (Somwung 2007; SEAMEO RIHED 2012). In addition, this round hopefully will encourage the institutions to leapfrog ahead with the continuous development of quality and standards.

From the third round of external quality assessment onward (2010+), the 2010 Ministerial Regulation on System, Principles, and Methods of Quality Assurance stipulated that ONESQA shall employ the national education standards as a framework for conducting external quality assessment of each educational institution including the following criteria and standards:

1. Standards on results at each level and type of education
2. Standards on educational management
3. Standards related to the use of a student-centered approach
4. Standards on internal quality assurance

Although experience over the past years brings both positive and negative lessons, quality in education is a complex and *multidimensional* concept (see Chap. 19). It takes different perspectives from various groups to embrace the concept. Support and cooperation from all parties contribute to the successful implementation of a quality assurance system in educational institutions. Following the continuous improvement cycle of plan-do-check-act, introducing this basic problem solving process into the work culture creates quality awareness throughout the organization. More innovative methods of teaching are being created through the implementation of classroom action research and student-centered learning concepts. Involvement of stakeholders through feedback and interviews during audit exercises has brought about better understanding between institutions and external communities. Students are made more aware of their roles and importance in the quality assurance system and how they can contribute to quality teaching and learning. The external review process has encouraged many institutions to improve their management information systems and employ their own institutional research as a means for improvement. The introduction of a quality assurance system created a willingness to share and learn from each other both internally and externally and has fostered a highly positive atmosphere among the quality circles of education institutions in the country.

Thailand is at present building a working system based on a networking of individuals and organizations both within and outside the country. ONESQA has taken a leading role in international developments in standards and quality. ONESQA

enjoys a close relationship with international quality assurance agencies, monitoring and reporting on advances around the world. Such networking is aimed at the further development of the quality assurance system and enhancement of education reform measures.

24.2.9 Results of External Quality Assessment in the Third Round (2011–2015)

1. The results of the external assessment of educational institutions at the basic education level are shown in Table 24.2.

The above table shows that 19,476 schools (62.1%) at the basic education level were certified by ONESQA in the third round external quality assessment. Only institutions under the jurisdiction of Office of Higher Education Commission were all certified and two thirds with “very good” ratings. It should be noted that more than 30% of schools under the jurisdiction of the Office of Basic Education Commission, Department of Local Administration, and the Office of the Private Education Commission (OPEC) were not certified, reflecting serious quality problems in the system (see Chap. 19).

2. The results of the external assessment of vocational education institutions are shown in Table 24.3.

Table 24.3 shows that 596 vocational institutions (79.7%) were certified by ONESQA in the third round assessment. Out of that number, only 75 or 10% of the vocational institutions were rated “very good.” The results of external quality assessment show that 152 or 20.3% of vocational institutions have not reached the standards required by ONESQA. The majority of these are under the jurisdiction of the Office of the Private Education Commission.

3. The results of the external quality assessment of higher education institutions are shown in Table 24.4.

Table 24.4 shows that 253 or 97.3% of higher education institutions have reached the standard required. Out of this number, 78 or 30% of higher education institutions were rated “very good.”

24.2.10 Summative Assessment of ONESQA in Its First Decade (2000–2010)

Actually there is always the interesting question of who evaluates the evaluators. The following are three appraisals of ONESQA, two international and one national. Grant Harman (2002) writing in *International Higher Education* states:

Table 24.2 Results of the external quality assessment at the basic education level in the third round

	Certified						Not certified		
	Very good		Good		Total		n	%	Total (N)
	n	%	n	%	n	%			
Under the jurisdiction of									
Office of Basic Ed. Commission	2025	7.22	15,126	53.90	17,151	61.11	10,914	38.89	28,065
Office of Private Ed.	261	12.93	1133	56.14	1394	69.08	624	30.92	2018
Bangkok Administration	27	6.21	362	83.22	389	89.43	46	10.57	435
Department of Local Administration	43	5.26	460	56.23	503	61.49	315	38.51	818
Office of Higher Ed. Commission	26	66.67	13	33.33	39	100.00	–	–	–
Total	2382	7.59	17,094	54.48	19,476	62.07	11,899	37.93	31,375

Table 24.3 Results of the external quality assessment of vocational education institutions in the third round

Under the jurisdiction of	Certified						Not certified		Total (N)
	Very good		Good		Total		n	%	
	n	%	n	%	n	%			
Office of Vocational Ed. Commission	61	14.84	326	79.32	387	94.16	24	5.84	411
Office of Private Ed.	14	4.18	193	57.61	207	61.79	128	38.21	335
Department of Local Administration	–	–	2	100.00	2	100.00	–	–	2
Total	75	10.03	521	69.65	596	79.68	152	20.32	748

Table 24.4 The results of the external quality assessment of higher education institutions in the third round

Under the jurisdiction of	Certified						Not certified		Total (N)
	Very good		Good		Total		n	%	
	n	%	n	%	n	%			
Office of Higher Ed. Commission	44	26.19	117	69.64	161	95.83	5	4.17	166
Ministry of Public Health	18	48.65	19	51.35	37	100.00	–	–	37
Ministry of Defense	6	33.33	12	66.67	18	100.00	–	–	18
Royal Thai Police	5	41.67	7	58.33	12	100.00	–	–	12
Ministry of Sport and Tourism	5	27.78	13	72.22	18	100.00	–	–	18
Other ministries	–	–	7	100.00	7	100.00	–	–	7
Total	78	30.00	175	67.31	253	97.31	5	2.69	258

Major efforts are currently underway to implement a new analytical assurance system in Thailand for both the public and private sectors of (higher) education... Considerable progress has been made with implementation.

Bunnith Hean (2009), Chief of International Cooperation of the government of Cambodia, notes that ONESQA has been seen as a successful organization in ASEAN, under the direct oversight of the Prime Minister. The Thai Rating and Information Services (TRIS) did an appraisal of Thailand's public organizations. Four public organizations, including the Office for National Education Standards and Quality Assessment, were rated as "excellent" (Piyant 2009).

24.2.11 Survey of Out-of-Class Activities of Teachers

The Office for Promoting Learning Society and Youth Quality (*So So Ko*) (สสจ.) conducted a telephone survey of 427 outstanding teachers nationwide from every province concerning out-of-class activities affecting teaching and learning. The following major findings were found:

1. Teachers spent 95 days for out-of-class activities not related to teaching and learning consisting of 84 school days (42%) and 11 holidays in an academic year (200 school days).
2. In terms of types of activities, teachers spent 43 days (21.5%) for assessment activities (17 days for assessing schools which are 9 days for EQA of ONESQA, 16 days for assessing students, i.e., O-NET, and 10 days for assessing teachers). Teachers spent 29 days (14.5%) in academic competitions and 10 days in training/workshops.
3. Out-of-class activities with positive impact upon teaching and learning as perceived by teachers are academic competition activities (40.3%), O-NET testing (15.2%), and training and workshops (15.0%).
4. Out-of-class activities with negative impact upon teaching and learning as perceived by teachers are external quality assessment of ONESQA (45.7%), training and workshops (19.7%), and academic competition (5.6%) (see Chap. 18).

24.2.12 Future Directions of External Quality Assessment

1. ONESQA must be aware and accept that internal quality assurance is at the heart of any quality assurance system. According to the royal decree establishing ONESQA, Section 8 (1) stipulated that the efficient external quality assurance system must correspond and go side by side with the internal quality assurance system of educational institutions and the system of their parent organization. Therefore, ONESQA must accept the critics and their comments and forgo the external quality assurance system for the fourth round (2016–2020) to promote and support institutions' own internal quality assurance and educational management.
2. Regarding the educational institutions having a high level of quality and standards, ONESQA shall recognize the standards based on the self-assessment report and results of the internal quality assurance. In case of uncertainty, staff of the Office may visit educational institutions for the assessment of their system and mechanisms for the internal quality assurance of these particular institutions. Besides, online "site visits" can be done which will save substantial resources. This will soon lead to the development of a self-certification system.

3. ONESQA should implement the policy articulated by the former deputy prime minister, namely, improvement of the external quality assessment methods, emphasis on the quality of external quality assessment, quality control and development of external assessors, and fair/appropriate external assessment for schools, colleges, and universities.
4. To have the internal solidarity between the internal and external quality assurance systems at various levels and types of education as well as the national examinations, these should be a policy meeting for discussion, revisions, and determination of educational standards for internal and external quality assurance systems. This can be done by including representatives of the Office of the Permanent Secretary-General, the Office of the Basic Education Commission, the Office of the Vocational Education Commission, the Office of the Higher Education Commission, the Office of the Education Council, the Office for National Education Standards and Quality Assessment, the National Institute of Educational Testing Service, and the Institute of Promotion of Science Teaching and Technology. This aims to develop quality of education in accordance with Section 47 Chap. 6, Educational Standards and Quality Assurance of the 1999 National Education Act.
5. The creation of the Office for Promoting Learning Society and Youth Quality (*So So Ko*) resulted from the concept of the provision of a special fund to support educational institutions' quality development based on results of the external quality assessment. This is particularly focused on the educational institutions not reaching the standards mandated by ONESQA. Thus, *So So Ko* cooperating with ONESQA and their parent organizations must give priority to the importance of the promotion of the quality development of educational institutions at the basic education, vocational, and higher education levels. This aims to promote the educational institutions having strong educational management and effective systems and mechanisms to ensure internal quality assurance in order to meet the *quality and standards required*.

24.2.13 An Examination of the Quality System of the Office for National Education Standards and Quality Assessment

An “unknown” committee was set up by the Office of the Higher Education Commission (OHEC) to examine the quality system of the Office for National Education Standards and Quality Assessment (ONESQA) (“evaluate the evaluator”). They found that in the last 10 years, the external assessment results for higher education institutions have been largely ignored and the recommendations have not been used to improve the quality and standards of higher education. Moreover, the qualifications and capacity of external assessors have not met the expectations of those in the academic culture. Stakeholders also question the suitability of

ONESQA's assessment approach as they see it as not appropriate for the external changes and the great variety of educational institutions, especially in higher education ("one size fits all" issue). To increase the efficiency and effectiveness of ONESQA's operations, they recommend to transform ONESQA into an accreditation body. ONESQA should focus on assuring the quality of education at the outputs and outcomes stage and establish the accountability system of quality assurance for the education system. In addition with funds saved from eliminating costly site visits, a Quality Education Fund should be established to support innovations to improve quality.

24.3 National Testing and Assessment of Learners

24.3.1 Establishing the National Institute of Educational Testing Service (NIETS) (Ministry of Education 2005)

The 1999 National Education Act (amended in 2002) (ONEC 2003) requires that education management must be done to develop Thai citizens to be whole persons physically, intellectually, and ethically. They must be ethical and respect cultural norms to lead their lives and to live with others happily. The structural organization system and educational management process are based on the unity of policies and a variety of practices. It states that there must be a decentralization of power to educational service areas, educational institutions, and local administrative organizations. There must be the setting of educational standards and an educational quality assurance management process for all educational levels and types. Since it was necessary for the government to inspect and evaluate whether the quality of educational management to provide services reaches expected standards and is fair or not, the National Institute of Educational Testing Service (public organization) was then created.

The National Institute of Educational Testing Service (NIETS) was established as a public organization to enable it to work effectively, to maximize the use of resources and personnel, and to ensure its independence from any educational management organizations. Therefore, this Institute can remain neutral. It can establish its own principles, policies, measures, and targets of administrative structures and works cooperatively with the government and related organizations. It has an effective and systematic evaluation process to enable it to achieve its goals, to administer, manage, and conduct its work in the areas of study, research, and services on educational testing, measurement, and evaluation. It also works as a center for national and international cooperation on educational testing services.

The National Institute of Educational Testing Service (NIETS) was established on September 3, 2005, as a public organization. Its service, up to the present time, extends from primary and secondary to tertiary levels of education. Each year, it also prepares numerous national examinations for university admissions.

24.3.2 Objectives

Section 7 of the 2005 Royal Decree establishing the NIETS stipulated that the Institute has the objectives to manage and operate the study, research, development, and provision of educational testing and assessment services as well as become the center on educational testing and assessment services at the national and international levels.

24.3.3 Vision

To be a world class educational testing and assessment service center.

24.3.4 Mission

1. To establish the systems and methods of testing and develop reliable and valid tools for measuring and testing in accordance with rigorous educational standards
2. To evaluate the results of educational management and national educational testing as well as to offer cooperation and support testing at various educational levels and institutions
3. To manage educational testing services, services to measure and evaluate knowledge and abilities, and the testing of technical and vocational standards, the results of which are to be used as one important element in the comparison of levels and transfer of educational credits or results in education in the same or different systems
4. To conduct educational research and disseminate innovations in educational testing as well as new techniques for educational measurement and evaluation
5. To serve as a center for educational testing information as well as support and provide testing services to various organizations both domestic and international
6. To develop and promote academic work regarding educational measurement and evaluation, to train the personnel in the field of measurement, to evaluate the follow-up and evaluation of the quality of graduates, and to certify the standards of the system, methods, and tools of organizations used for educational measurement and evaluation
7. To serve as a center of cooperation in educational measurement and evaluation at national and international levels

24.3.5 Administrative Policies

To make its vision and mission possible, NIETS has the following administrative policies:

1. Standardize the national examination testing administrations.
2. Develop all test items to measure all educational standards effectively.
3. Manage to make use of the test results.
4. Conduct a research and development study to establish an educational measurement system to assess all educational standards at all educational levels and types.
5. Conduct research studies on test formats, and support a research and development study of computer programs for test construction, techniques, and various testing standards.
6. Publicize information and knowledge to create a good image of the Institute.
7. Review related laws, regulations, and consensuses, and make changes to fit best the present situations and facilitate working conditions.
8. Support and cooperate with other educational institutions to have their own educational measurement and evaluation programs according to Section 26 of the 1999 National Educational Act.
9. Provide testing services to other persons and organizations.
10. Be a national testing center, which supports and provides services on testing results to various organizations as well as coordinate with other institutes in the country and abroad on educational measurement and evaluation with international standards.

24.3.6 National Educational Measurement Standards

To assure that the test results of any national educational examinations are accurate, reliable, and trustworthy, NIETS has established its own measurement standards as follows:

1. Test development standards. All test items and educational tests must be constructed systematically with clear and reliable steps.
2. Test administration standards. All tests must be administrated with transparency, fairness, acceptability, and trustworthiness at national and international levels.
3. Test printing standards. All test printings must be monitored, controlled, and secured in all clear steps, and all tests must be kept in confidential places with extremely tight security under an authority's responsibility.
4. Test report and test result standards. All test reports and test results must be written, checked, double checked, analyzed, and reviewed by groups of experts in the field of educational measurement and evaluation to make sure that they are correct, suitable, fair, and reliable.

Table 24.5 NIETS funding from the national budget by budget year from 2009 to 2014

Budget year	National testing budget		% of Ed budget
	Thai Baht	USD	
2014	774,503,800	23,356,568	0.15
2013	864,817,700	26,080,147	0.18
2012	900,788,400	27,164,909	0.20
2011	604,501,300	18,229,834	0.14
2010	659,343,300	19,083,694	0.17
2009	422,037,800	12,727,316	0.12
Average	704,332,050	21,240,411	0.16

5. Testing personnel standards. All supporting staff and experts involved in testing must have suitable qualifications in the field of educational test, measurement, and evaluation.

24.3.7 National Testing and Assessment Budget

As a public organization, its primary funding comes from the national budget each year, but some revenue comes also from testing services given to teachers who desire to upgrade themselves in educational measurement and evaluation.

Table 24.5 shows the national testing budget of NIETS ranging from 422.038 million baht or 12.727 million US dollars in the budget year of 2009 to 900.788 million baht or 27.165 million US dollars in the budget year of 2012. On average, NIETS received funding from the national budget of 704.332 million baht or 21.240 million US dollars or 0.16% of the annual education budget.

24.3.8 National Test and Utilization of Test Results (NIETS 2013; Somwung and Samphan 2014)

The National Institute of Educational Testing Service (public organization) is the agency responsible for the following national educational tests:

1. *Ordinary National Educational Test (O-NET)* is the standard-based achievement test for basic education, comprised of eight subject areas including Thai language; social studies, religion and culture; English language; mathematics; sciences; health and physical education; arts; and career and technology for students in Grade 6, Grade 9, and Grade 12 under the Basic Education Core Curriculum (2008). The O-NET results of students in 2014 are shown in Table 24.6.

The O-NET results are used for (1) self-assessment for guidance and improvement of teaching and learning and management, (2) educational quality assurance,

Table 24.6 Mean and standard deviation of O-NET scores of students in Grades 6, 9, and 12 in the academic year 2014 by subject areas and grade levels

Subject groups	Grade 6			Grade 9			Grade 12		
	N	Mean (%)	SD	N	Mean (%)	SD	N	Mean (%)	SD
Thai language	731,113	44.88	13.13	667,912	35.20	8.84	429,866	50.76	15.08
Social studies, religion and culture	731,095	50.67	15.25	667,335	46.79	11.61	431,224	36.53	9.51
English language	731,106	36.02	18.47	667,767	27.46	9.66	430,877	23.44	11.59
Mathematics	731,047	38.06	17.83	667,384	29.65	12.84	431,287	21.74	14.58
Sciences	731,142	42.13	14.07	666,883	38.62	12.80	429,876	32.54	9.15
Health and physical education	731,133	52.20	14.44	667,225	59.32	12.69	429,490	51.94	12.17
Arts	730,666	45.61	15.48	666,991	43.14	10.92	429,459	34.64	7.96
Career and technology	730,564	56.32	16.63	666,960	45.42	12.33	429,442	49.01	12.52



Fig. 24.2 Thai students taking a break from O-NET testing on February 27, 2016 (Photo courtesy of Director Penpa Chomdech (Wat Muang School, Nakhon Pathom))

(3) selection for studying at higher levels, and (4) comparing the quality at national and international levels and (5) as part of requirements for graduation (30% in 2014 and to be 50% in 2015 and thereafter).

Table 24.6 shows that students in Grades 6, 9, and 12 have the highest mean O-NET scores in the subject areas of health and physical education and career and technology. It should be noted that the students in Grades 6, 9, and 12 had rather low O-NET scores in the important subject areas of mathematics and English language. Figure 24.2 shows Thai students taking a lunch break from O-NET tests administered on February 27, 2016 across the nation.

2. *Vocational National Education Test (V-NET)* is a test to measure the knowledge and ideas based on academic and professional standards of the vocational curriculum (amended 2003) for level three vocational students. The test results are used to improve the teaching and learning quality of vocational schools and are to be used for educational evaluation of students at the national level. The test results are also used for improving teaching and learning and internal and external quality assurance.

V-NET is comparable to O-NET for general education students who will complete their basic education or Grade 12. The Vocational National Educational Test consists of two parts including the general subject test (consisting of six subjects, including Thai language, foreign language, mathematics, sciences, social studies, physical education and health education) of approximately 20–25% and vocational subject test of approximately 75–80%.

3. *Nonformal National Educational Test (N-NET)* and Highest Level of Basic Education Equivalence Test (graduate from Grade 12 in 8 months). N-NET refers to the test to measure the knowledge and ideas of students in the final year of primary school or high school education of nonformal basic knowledge, occupations, life and living skills, and social development based on the nonformal basic education curriculum (2008) for all three levels (primary, lower secondary, and upper secondary) of education. The test results are used for improving teaching and learning, for internal and external quality assurance, and for assessing student achievement at the national level.

The Highest Level of Basic Education Equivalence Test (Grade 12 in 8 months) is the test to compare the knowledge with the highest level of basic education (high school). The test consists of nine subjects, including the use of computers, mathematics in everyday life, business administration, SMEs, democracy, community management, Chinese or English conversation, Thai language for communications, community research, and food management for families and communities. This test is for students who have enrolled in the accelerated nonformal public education program to finish Grade 12 in 8 months with quality.

The results of the N-NET and equivalence tests are used as parts of the graduation process and to develop the quality of education at different levels and learning processes, including learning development skills of students in their knowledge subjects and abilities in order to provide guidance for further education and learning plans of the students.

4. *Islamic National Educational Test (I-NET)* is a test to measure the knowledge and ideas of students based on the Islamic Studies Curriculum formulated in (2003). The results are used for the improvement of teaching and learning quality of the schools involved. The test results are also used for improving teaching and learning, for internal and external quality assurance, and for assessing student achievement at the national level.

NIETS arranges the I-NET for students who are studying in the final year of the curriculum of Islamic studies at primary and secondary levels in private schools teaching Islamic studies in parallel with general subjects in areas such as Bangkok,

Nonthaburi, Prachuap Khiri Khan, Krabi, Chumphon, Trang, Nakhon Si Thammarat, Narathiwat, Pattani, Phang Nga, Phatthalung, Phuket, Yala, Ranong, Songkhla, Satun, Surat Thani, and the Islamic Education Center of Najmuddeen Mosque (TADIKA).

5. *Buddhist National Educational Test (B-NET)* aims to test the knowledge and ideas of students based on the curriculum of the Buddhist Scripture Schools, General Curriculum Division, under the National Office of Buddhism (NOB), a total of 409 schools nationwide for their courses in Buddhist history and discipline, religious practice, and Pali language at the Grade 9 and Grade 12 levels. The results of B-NET are used for (1) improvement of teaching and learning quality of the educational institutions involved, (2) educational quality assurance, and (3) comparing quality at national levels.

For educational testing services to be provided successfully and effectively, the National Institute of Educational Testing Service (public organization) has prepared a manual for each type of test for the test centers and exam locations. The test centers are required to assign those involved to study and comply with every step according to the national educational test standards which are established as the same standards across the country. This helps the educational tests to achieve the objectives set forth.

6. *Other Education Tests*

The NIETS also provides the services for the General Aptitude Test (GAT) and the Professional and Academic Aptitude Test (PAT), including 13 subjects for those interested to use it for application for the admission system or the Central University Admissions System (CUAS).

1. *General Aptitude Test (GAT)* is a measure of potential for successful learning in the university divided into two parts as follows:
 - 1.1. Ability to read, write, think critically, and solve problems (50% weight)
 - 1.2. Ability to communicate in English (50% weight)
2. *Professional and Academic Aptitude Test (PAT)* is a measure of the knowledge that is the basis for learning each profession successfully, including seven main professional fields:

- | | |
|-----------------------------------|-----------------------------|
| PAT 1: Mathematical skills | PAT 2: Scientific skills |
| PAT 3: Engineering skills | PAT 4: Architectural skills |
| PAT 5: Teaching profession skills | PAT 6: Fine arts skills |
| PAT 7: Other language skills | |
| PAT 7.1: French | |
| PAT 7.2: German | |
| PAT 7.3: Japanese | |
| PAT 7.4: Chinese | |
| PAT 7.5: Arabic | |
| PAT 7.6: Pali | |

The GAT/PAT test results are used for university admission purposes.

Table 24.7 Strengths and weaknesses of NIETS

Strengths	Weaknesses
Having operating networks	Lack of test academicians and researchers
Independence and smooth-running	The examinations needed for standardization
Has adequate funds from the national budget	Personnel with different philosophy from that of the national assessment at an international level
Has no competitors	
Smooth coordination with target users especially the Office of Basic Education Commission (OBEC)	Ineffective contracted agencies
	Lack of quality control in operations
Has some similarities with ETS and ACT in the USA	Lack of research for quality testing and assessment at the national level so that tests and assessment results are not improved

24.3.9 *Summative Assessment of NIETS*

During the budget years from 2009 to 2011, it was found that NIETS' objectives as specified in Section 7 of the royal decree and the objectives of the strategic plan were highly achieved. In addition, the NIETS executive policies were implemented successfully (Association of Institutional Research and Higher Education Development 2013). Based on the suggestions of several scholars (Somwung et al. 2013), the following are some strengths and weaknesses of NIETS identified: (Table 24.7).

24.3.10 *Future Direction of National Testing and Assessment (Somwung et al. 2013)*

1. Movement from "learning achievement test" to "competency test." This is in accordance with the standards of learner quality as determined by the Ministry of Education. All aspects of learners' quality as stipulated in the learner's standards for basic, vocational, and higher education levels will be assessed.
2. Role of the national examination as one component of the examination for compulsory education graduates (Grade 9 and Grade 12 graduates). Also it is used for the selection of students who want to pursue their study at the higher education level. Importantly, it can be used as an important component for the recognition of the standards of basic education schools. In fact, this is the fundamental role of O-NET and the examinations NIETS holds every year.
3. To combine the national examination score with the school examination score. Weight ratio of the national level and the school level is 50:50 for subject areas focusing on theories and 30:70 for those focusing on practice.
4. Item banking and e-testing for national testing and assessment continue to develop and be implemented.

5. NIETS continues to perform a dual function of national testing and national assessment in line with other international assessment system, e.g., the PISA tests of OECD.

24.4 An OECD-UNESCO Perspective on Testing and Assessment in Thailand

We were really surprised that their student assessment chapter seems too critical of both NIETS and ONESQA. Their basic critique seems to be in short as follows: The O-NET tests vary in difficulty from year to year making comparability over the years problematic. The O-NET tests lack reliability and validity and overly focus on cognitive knowledge. ONESQA imposes too much paperwork burden on school leaders and teachers taking away from time to be instructional leaders and actually being in the classroom.

The O-NET tests for Grade 12 students in five core subjects in the academic years from 2012 to 2014 had coefficient alphas ranging from 0.76 to 0.88. The average coefficient alphas were 0.80. The average of the O-NET test difficulties, ranging from 0.24 to 0.48, was 0.33. The O-NET tests had the discrimination power ranging from 0.29 to 0.40 with the average discrimination power of 0.33. Drawing from the above test statistics, O-NET tests seem quite reliable. It is unfortunate that the OECD-UNESCO team did not examine evidence concerning test analysis using both classical test theory and item response theory, especially the universal score project for comparing O-NET scores over time. The O-NET tests have been improved to test knowledge and thinking skills similar to the PISA tests of OECD. Next year O-NET test items will be drawn from a carefully developed item bank in order to guarantee the quality of test items. The government supports NIETS to continue to explore to use subjective tests in some small portion. However, having subjective tests as an alternative would be excessively expensive and introduce all kinds of unreliability.

A major report on education reform prepared by faculty at NIDA also was highly critical of Thai testing arguing that the tests fail to assess quality of students directly and that the whole assessment mechanism is too focused on *process* creating excessive demands on teachers' time (Vichit et al. 2014).

Concerning external quality assessment by ONESQA in the third round, a major critique comes mainly from the sample survey research of 427 teachers. It must be very careful not to over generalize to the population of teachers and schools. However, ONESQA was asked by the government to redesign external quality assessment in the fourth round to be more diversified to serve a variety of schools in different contexts. The external quality assessment by ONESQA is likely to change from being compulsory to optional.

24.5 Summary and Concluding Reflections: The Future of ONESQA and NIETS

The National Institute of Educational Testing Service (NIETS) and the Office for National Education Standards and Quality Assessment (ONESQA) are both independent bodies created by the 1999 National Education Act and Royal Decrees. NIETS assesses the quality of education through students' achievements as manifested in national examination results. In contrast, ONESQA assesses the quality of education through the examination of schools and universities against key criteria once every 5 years. Each year, NIETS conducts six national examinations: O-NET, I-NET, N-NET, V-NET, B-NET, and other education tests. The total expenditures for national testing and external quality assessment are about 37 million USD per year or 0.28% of the national education budget. The median O-NET scores of students in Grades 6, 9, and 12 were 45.25%, 40.88%, and 35.58% in 2014. From the external quality assessment, it was found that the certification rate of educational institutions at the basic education, vocational, and higher education levels were 62.1%, 79.7%, and 97.3%.

Future directions for national testing and assessment and for the external quality assessment are now being explored. In thinking about the future of both these important public organizations, it may be useful to utilize a futures research methodology developed by the late Professor Robert B. Textor (1980) (Avery 2013) at Stanford. In thinking about the future, Textor suggested that three possible scenarios should be carefully examined: the most optimistic, the most pessimistic, and the most probable or likely. This approach is now being utilized in looking at possible futures for first ONESQA and then NIETS.

24.5.1 *The Future of ONESQA*

In recent years there have been numerous debates about ONESQA and its appropriate role in the assessment and evaluation of Thai education. The optimistic scenario is that ONESQA as a public organization will continue to conduct efficient *external assessments* in line with the quality assurance system of the educational institutions as stipulated in the 2010 Quality Assurance ministerial regulations, employing an *amicable* non-threatening assessment model with professional well-trained assessors. This system would emphasize valuable formative evaluation feedback to educational institutions at all levels to facilitate improved educational quality.

A pessimistic scenario would be that ONESQA is forced to transform itself into simply an accreditation body with a focus on assuring the quality of education at the outputs and outcomes stage and in this way establish the accountability system of quality assurance in education. It would no longer assess all educational institutions every 5 years and no longer provide potentially valuable formative assessment.

The most probable scenario is that ONESQA will still exist as a public organization to certify educational institutions once every 5 years with a "one size fits all"

approach. Extremely time-consuming costly site visits will be eliminated, and assessment will be done primarily through use of online data and resources. Interestingly in August 2018, ONESQA, after a 2-year delay, announced it will start a fourth round of quality assessments, but the process will be streamlined and much simpler. Based on this new system, institutions will be grouped into five categories: developing, moderate, good, great, and excellent (Dumrongkiat 2018). Given that numerous educational institutions have found the external evaluation system both onerous (particularly in terms of time required to prepare for the assessments) and duplicative of internal assessment protocols, the external assessment under this scenario could become *optional*.

24.5.2 *The Future of NIETS*

Non-cognitive skills apparently are important in industry. Meta-analyses have shown that non-cognitive measures provide a 20% improvement over cognitive ability measures in predicting training success and job performance (Schmidt and Hunter 1998). Worthen (2018) argues that we are mismeasuring students and need to rethink the way we assess learning outcomes. Non-cognitive assessments can play multiple roles – admissions, placement, diagnosis, outcomes, institutional studies, and others. However, major challenges in non-cognitive assessment involve measurement issues related to deceit (e.g., social desirability issues) and/or test-related coaching and the valid assessment of non-cognitive constructs. NIETS has a 3-year assessment research project (2016–2019) in order to study non-cognitive constructs and to develop non-cognitive tests and scales. The optimistic scenario is that standard-based and *holistic* (cognitive and non-cognitive) testing and assessment in line with the international approach (e.g., PISA) with standardized literacy tests will continue to be implemented. Efforts will be made to make all tests as reliable and valid as possible. In terms of holistic testing, with the advent of the AEC era, it may be useful to consider utilizing some kinds of tests related to intercultural competency and ASEAN literacy.

The most pessimistic scenario would be that testing would be narrowly content-oriented with potential problems of validity. It would be national in scope and not necessarily meet the international standards of tests such as PISA and TIMSS. In the past history of Thai testing, there have been criticisms of some test items which were considered to be overly esoteric and irrelevant, and this problem would persist under this scenario. Also under this pessimistic scenario, the testing platform would overly encourage *teaching to the test* and, thus, run counter to the student-centered learning approach emphasized in the 1999 NEA.

The most probable scenario is that Thailand will continue with PISA-like cognitive testing that meets international standards but will not develop a genuinely holistic testing platform that rigorously assesses important non-cognitive traits and abilities. Thai educators and psychometricians are aware of the many critics of the PISA tests such as Abeles (2015), Andrews et al. (2014), and most recently Komatsu and Jerome Rapplepe (2017), but because of concerns both about accountability and

international standards, Thailand is committed to maintain NIETS as a viable public organization performing even better in implementing rigorous, reliable, and valid testing of diverse and important key cognitive and non-cognitive domains.

24.5.3 *Final Reflections*

The theme of this volume is the need to rethink education. Educational change, innovation, and reform need to be evidence-based. The approach to assessment often drives pedagogy and ways of teaching and learning. Assessment, pedagogy, and curriculum must closely align if both quality and reform are to be realized. It is important to ground educational change in valid and reliable formative and summative educational research and evaluation. A rigorous and open assessment system not only contributes to accountability but provides the opportunity to listen to diverse voices calling for educational change and reform.

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Part VI
Alternative Educational Paths and Future
Directions

Chapter 25

Shadow Education in Thailand: Thai and International Perspectives



Nantarat Charoenkul

Abstract “Shadow education,” known as “for-profit” private supplementary tutoring or coaching, has operated all over the world, in both Western and non-Western countries, including many Asian countries such as Korea and Japan. In Thailand, this kind of “educational industry” has grown and spread rapidly since the early 1990s. While the mainstream or regular schooling aims to impart to students’ traditional knowledge and skills officially stated in the curriculum and courses set by an authorized party, private tutoring, which appears in various forms, provides students with additional information and coaching or training to prepare them well for a variety of examinations or to become well equipped with some specific skills, such as other languages, mathematics, performing arts, or sports. At present, many students or parents have interest in additional tutoring or invest more in this industry despite having been already burdened with heavy workloads from the system of formal schooling. Apart from sharing some intriguing data on the popularity of shadow education and its growth in Thailand, this chapter probes into the reasons behind such a phenomenon, its pros and cons, and also explores some policy strategies and guidelines to cope with private tutoring issues.

25.1 Background and Significance

The powerful metaphor of shadow education was coined by Marimuthu et al. (1991) in a study of social equity and educational quality in Malaysia. Later the construct was popularized by Mark Bray (1999, 2003, 2009, 2012, 2016, 2017) in his extensive global research on this phenomenon of greatly growing importance. Shadow education is defined as “paid private supplementary tutoring or coaching aimed at providing additional help to students outside of school mainly to prepare for a variety of examinations” (Byun 2014, p. 39). It is a broad term commonly used to

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represent a wide range of private tutoring actively marketed while the mainstream or regular schooling is also operating at the same time. It appears in various forms, widely known as cram schools (usually arranged in large classes), individual or one-to-one tutoring, group tutoring, home visits, special correspondent courses, Internet tutoring, or special classes such as one on improving English language skills, or one on developing skills in using an abacus (Bray and Lykins 2012), or one on developing talent in golf or tennis (see Fig. 25.15).

In general, it is perceived that “shadow education” is not only teaching and learning about new bodies of knowledge but also focusing on at least parts of the regular curricular content and related issues that the learners have already experienced. However, instructors or tutors want to emphasize those bodies of knowledge that will promptly bring direct benefits to the learners at present or in the very near future.

Given its difference from other kinds of traditional schooling, private tutoring concerns not only the enhancement of general knowledge or normal content but also concentrates on some particular goals and objectives within a limited time frame. Thus, it clearly turns out to be like a kind of “commodity” having service providers on the one side and service users (or customers) on the other. This results in a marketing system, followed by a determination of benefits and expenses/costs. As noted by Apichai (2003), a goal of private tutoring focuses on competition with winning market share and making profits as the ultimate target for providers. Thus, this is a critical stimulus that fosters the dramatic growth in private supplementary tutoring as an educational “industry.” Crotty (2012) projects that by the year 2018, shadow education will be a huge global “industry” totaling 102.8 billion US dollars. Korea currently is the country with the largest shadow education system (Byun 2014).

Similarly, this kind of tutoring industry has grown rapidly in Thailand since the early 1990s. In 1992, 144 tutoring institutions were registered with the government and continuously increased to 904 in 2001 and 1964 in 2012 (Rattana 2014). In parallel with this phenomenon, investment in the shadow education system has soared as well. This is corroborated by Paitoon (2002) who found that up to 30% of secondary school students participated in private tutoring nationwide and the total expenditures on private tutoring totaled 3300 million baht, equivalent to 110 million US dollars. A later more recent study (Economic Research and Training Center 2011, cited in Rattana 2014) reported that the participation rate of upper-secondary school students taking private tutoring had accelerated to approximately 65.5% and that the total household spending on private tutoring was about 666.7 million US dollars. This was supported by a study by the Office of the Permanent Secretary, the Ministry of Education (2015), which revealed that the number of students taking private tutoring rose from 353,060 in 2007 to 536,696 in 2013. The number of tutoring schools increased from 334 in 2007 to 565 in 2013 in Bangkok and accelerated from 744 in 2007 to 1777 in 2013 in other provinces.

In addition, the Kasikorn Thai Research Center estimated the value of private tutoring markets (in the form of individual or group tutoring) in Thailand at about 7000 million baht (equivalent to 200 million US dollars) in 2012 and 8189 million baht (equivalent to 234 US dollars) in 2015. For the unit cost of private tutoring, it

was found that, for the period 2012–2014, the mean was 15,422 baht (or about 441 US dollars) per person, 15,840 baht (or approximately 453 US dollars) per person, and 16,783 baht (equivalent to 480 US dollars) per person, respectively, for each year. And in 2015, it increased to 17,763 baht (or about 508 US dollars) per person.

Also, from a survey of the number of students in the mainstream education system who participated in private tutoring, it was found that 74%–80% of high school students (aged 15–17) are likely to take supplementary tutoring, which is considered a high proportion (MOE 2015). And it turns out that the majority of those taking private tutoring are high school students majoring in science-mathematics, especially Matayom 5 (or equivalent to Grade 11) students with the highest proportion of 89.71% of private tutoring students, followed by 88.30% of those in Matayom 6 (or equivalent to Grade 12), and, lastly, 52.35% of Matayom 4 (or equivalent to Grade 10) students which was the lowest proportion.

25.2 Why Do Families and Students Invest in Shadow Education?

Educators and policy makers need to ponder the reasons why so many parents or students choose to take additional tutoring and to invest more in this activity despite having been already burdened with heavy workloads from the system of regular or formal schooling. In the Sri Lankan context, ten major reasons for such decisions were summarized succinctly by A.V. Suraweera (cited in Bray and Lykins 2012: p. 27), which resonate with current patterns in Thailand. They are as follows:

1. To discuss examination questions and answers in tutoring classes
2. To provide additional exercises that are not sufficiently given in school
3. To address the full syllabus subject content that is not covered in school
4. To help reduce the difficulty of understanding what is taught in school
5. To gain experience (or shortcuts) on instructions given in tutoring classes on how to answer test questions, for example
6. To cover the lost work in school as a result of engaging in extracurricular activities
7. To comply with the wishes of their parents
8. To enjoy fun in tutoring classes
9. To avoid losing the favor of school teachers (when the teachers themselves are doing tutoring classes as a kind of moonlighting)
10. To keep up with other classmates doing tutoring (to avoid being disadvantaged when compared to such students)

In addition to the abovementioned reasons, to participate in “private tutoring” is perceived as a strategy to review and enhance knowledge and skills previously acquired from school. That is because, at present, often mainstream schooling, both public and private, has a demanding curriculum. Being involved only in the mainstream schooling may not be perceived as sufficient for many school-age children.

This is corroborated by a synthesized summary of research on private tutoring cited in the report of the Office of the Permanent Secretary, MOE (2015), that indicates some disadvantages of formal schooling or the mainstream system that could not fully and efficiently respond to the needs of learners. Further, the examination system, covering direct admissions, admission exams under any quotas/projects, O-NET, and GAT, including the test of seven core subjects, remains ambiguous and complicated. It also tends to exclude those who fail in exams and, thus, cannot go further to higher levels of education.

On the other hand, in the shadow system, the tutor is supposed to start from something simple and then move to the hardest. The service providers, known as “tutors,” tend to give careful attention to their learners, equipping them with detailed information and skills so that they could master key bodies of knowledge by actually practicing on a set of specific questions and problems. This prepares them to do well on a complicated test or challenging examinations, to upgrade academic achievements at school, and to face more effectively any competition in the future.

25.3 A Typology of Those Pursuing Shadow Education

Students receiving private tutoring can be categorized into four groups: (1) serious students, (2) believers in differences between the strongest and the weakest learners, (3) those with anti-mainstream schooling ideas, and (4) fashionists.

1. There are those who are serious students and learners, with a strong desire to study hard and who want to seek and enhance knowledge beyond the confines of the school. This first category could be identified as those who want to overcome their weaknesses (e.g., inadequate knowledge of English) or to find something to fill in a gap of knowledge in order to catch up with or move ahead of their classmates. These individuals concentrate on revising, improving, and ensuring their knowledge base to upgrade their ability to perform successfully in any exams. Some of them also would like to obtain some background knowledge as a springboard to reach another upper level of more complex and challenging learning.
2. The believers in intellectual differences between the strongest and the weakest learners, recognized as “weak or slow learner-oriented,” indicate that those weakest learners could not study and comprehend the lessons as much or to the same extent as their top learner cohorts do within the same provided time frame. Owing to the said divergence between learners, they tend to have different learning styles, attitudes, and motivations even in the same or similar circumstances. Thus, the stronger learners perceive that their own success is constrained by the slower learners in a regular school setting. For the slow learners, they too need supplementary tutoring and attention to improve their performance in school and to fulfill acceptable academic capacities. However, they may not have the economic means to pursue tutoring assistance.

3. Those with anti-mainstream schooling ideas believe that the failure of the mainstream schooling system could be attributed to the poor quality of the present core curriculum, especially in many developing countries, where educators have not been adequately concerned about the learning capacity of the top and weak students nor any differences between learners. For instance, they generally tend to focus only on the typical curriculum content, which serves average learners, disregarding those top or weak learners who may need particular attention and divergent approaches to learning as well as the differences in terms of socioeconomic status, culture, and family background. Even worse, the behavioral objectives of learning of students in each class and in each level have been so broadly set (“oversized curriculum”) and subdivided that the administrators, teachers, and students cannot master such an extensive curriculum in a limited time frame (Williams 2009).
4. The fashionists refer to those who follow the social trends and values concerning taking courses at tutoring centers in order to catch up with their peers who also go to tutoring schools, to become associated with new friends, as well as to prepare themselves for the competition for a place at a school or university. However, academically the fashionists tend to focus more on making connections with friends rather than getting into a very renowned institution.

25.4 Prevalence of Shadow Education in Thailand

Some statistics from the past through the present time reveal that over 50% of the seventh grade students in leading secondary schools in Thailand did take supplementary tutoring. For those in specialist fields, for example, such as students in the Military Cadet School, about 90% took courses at a tutoring school to prepare themselves for the highly competitive system of higher education (Thippanya 2015a, b).

Generally, in Thai society, most parents need to work during weekdays. Some also have to work on weekends. Among countries ranked by *The Economist*, Economic and Financial Indicators (2018), Thailand currently has the world’s lowest unemployment rate. So many parents choose to send their children to a tutoring school with a belief that the tutor or a team of tutors, expected to be professionals or experienced persons, will be able to provide good educational services, after school time, for their children. They will then have the chance to broaden their abilities with some new bodies of knowledge, practical advice, and guidelines for applying the newly acquired knowledge to succeed in highly competitive exams either at the local, regional, national, or international levels.

Apart from that, their children are provided with the opportunity to become associated with new friends who wish to obtain additional knowledge and skills outside school who as well are potentially valuable social connections. Thus, shadow education is also helping individuals enhance their social capital (Buchmann 2002). This will meaningfully assist them in broadening their visions and preparing them well to face new environments and interact effectively with unfamiliar people.

At present, there are over 600,000 school-age individuals in Thailand. Especially those in their final 3 years of the upper-secondary level recognize private tutoring as a tool to increase their confidence and success in taking the highly competitive entrance exams to gain entrance to the top higher education institutions. Generally, the tutoring system is considered as learning a set of supplementary lessons outside school for the reason that most students come to gain what they are lacking. The curriculum and courses included in the tutoring system are not to substitute for formal or mainstream education. One of the most critical factors that drive a student to take private tutoring is that those tutors are equipped with practical valuable experiences. Some tutoring institutes choose to charge tuition fees per hour. Since there are a very large number of private tutoring centers, students can choose to select those that best meet their needs. All such companies need to compete in terms of academic excellence, but the rates of fees are under the control of the Ministry of Education. Normally, the tutors focus on having their learners understand some specific, and usually complicated, questions/problems that significantly help facilitate their mastering of some particular sets of knowledge and skills without burdening themselves with a huge number of textbooks or learning materials.

25.5 Overlap Between the Lessons Given by Tutors Versus Those Obtained from Teachers at a Regular School

The Thai education system seriously encounters a shortage of teaching staff, both in terms of quantity and quality. That contributes to the differences in education standards and quality among schools (see Chaps. 13, 14, and 19). Moreover, some teachers or instructors may not have dedicated sufficient time for their normal classroom instruction. Or some of them still apply the old and obsolete models of teaching overly reliant on textbooks and supplementary learning materials. This causes the student's decision to turn to the services provided by those private tutoring institutes with a desire to gain some useful and new information outside school and with a belief that those renowned tutoring institutes have even higher standards of instruction.

In addition, public educational institutions, especially those popular among students and parents with strict and limited admissions (e.g., Chulalongkorn and Mahidol Universities), become a key factor that continuously accelerates the degree of competition in the entrance examinations, not to mention those social and labor market values unequally focusing on providing employment opportunities and future careers with famous organizations for applicants graduating from prestigious institutions “with a name” (*mahawitayalai mi chue*) (มหาวิทยาลัยมีชื่อ) (“cachet” phenomenon) (see Meyer 1970). Dore (1976) has termed the overemphasis on degrees “the diploma disease” (Fry 1981). As long as the inequality in education standards and quality exist among schools or educational institutions, the private tutoring

institutes inevitably become an essential and attractive alternative for students and parents who are confident that these institutes will help secure or widen their opportunities to secure places at a leading school or university which in turn will improve their future career prospects.

25.6 Do Students' Excessive Loads of Homework Contribute to the Need for Supplementary Tutoring?

Besides those problems with family and students themselves, a student's emotional stress may come from excessive "homework." It was found that students were overloaded with too much difficult and complicated homework assigned in some subjects. For some students, it took almost 3 h to finish their homework. That contrasts with the nature of children or school-age people who sometimes would like to enjoy life after school hours. Such a problem leaves a gap for the private tutoring system to fill a need for those who would like to have a good grasp of the practical knowledge and information required for finishing their homework in a shorter period of time. This is recognized as a "shortcut" technique that students may receive from their tutors. To handle this gap effectively, school administrators, teachers, and parents need to cooperate in adjusting their views on academic achievement that is often perceived as high test scores or grades only. They should also focus more on some spiritual aspects such as students' character, social and life skills, and morals for living in society (Thippanya 2015a).

As a result of the abovementioned phenomenon, the number of tutorial schools/centers has dramatically increased all over the country to respond effectively and competitively to the demands of students and parents with the desire for extra knowledge and skills which are strongly believed to enable them to perform very well in school and to pave the way for better opportunities to get into a renowned institution of higher education such as Chulalongkorn or Mahidol University.

25.7 Key Statistics on Private Supplementary Tutoring in Thailand

To support what was stated about private tutoring and its popularity, the following figures present some useful statistics from a reliable source of information concerning private supplementary tutoring, tutorial schools, and the number of students taking supplementary tutoring, both in formal and informal settings in Thailand. The statistical data have been carefully collected and updated from time to time by a special office of online news and publications, in cooperation with many scholars, academics, and government bodies. This organization is called "Thai Publica" (founded in September 2011). These data provided by Thai Publica are importantly disaggregated to the provincial level.

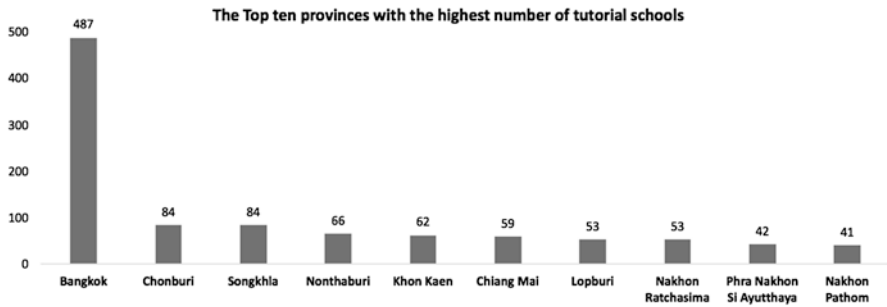


Fig. 25.1 The top ten provinces with the highest number of tutorial schools (*Source: Thai Publica 2013a*)

Figure 25.1 indicates that Bangkok is the province with the highest number of tutorial schools, followed by Chonburi in the Southeast, Songkhla in the South, and many larger provinces in different regions of the country. This probably reflect the thriving enterprises of tutorial schools in the capital and larger cities, where people usually go to work and search for opportunities to extend their business and social networks.

Figure 25.2 indicates that many tutorial schools are congregated in several districts in the city center and business areas such as Bangrak, Dusit, and Phayathai. Some are also found in prominent industrial areas like Lat Krabang, Nong Chok, and Min Buri. This signifies that such districts and areas are located conveniently and, thus, are easily accessible by public transportations such as buses, sky train (BTS), underground (MRT), and the Airport Rail Link.

From Fig. 25.3, looking at the map on the right, Chiang Mai is the province with the highest number of 59 tutorial schools in the northern part of Thailand, whereas, on the left, it shows that Songkhla is the province with the highest number of 84 tutorial schools in the southern part of the country, followed by Surat Thani with 40 tutorial schools, and then Phuket with 37 tutorial schools. These provinces are renowned as important business areas and popular tourist attractions.

Figure 25.4 reveals that Khon Kaen, the administrative center of the area, is the province in the northeastern part of Thailand with the highest number of 62 tutorial schools, followed by Nakhon Ratchasima or Korat, sometimes called the “Gateway to Isan,” with a high number of 53 tutorial schools all over the city. Korat is now the largest city in the northeast, is a major industrial/business center, and is home to several major universities (Fig. 25.5).

From the figures above, it can be seen that there are a total of 1,983 tutorial schools in Thailand: 487 in Bangkok and 1496 in the other 76 provinces, except Nong Bua Lamphu in the northeast and Pattani and Narathiwat in the south which have no tutorial schools at all.

Most tutorial schools are concentrated in the large cities in each region, and most are located in the central district of each province. The top ten provinces with the highest numbers of tutorial schools are Bangkok, Chonburi, Songkhla, Nonthaburi, Khon Kaen, Chiang Mai, Lopburi, Nakhon Ratchasima, Phra Nakhon Si Ayutthaya, and Nakhon Pathom, respectively. These top ten provinces have about 1030 tutorial

Number of Tutorial schools in Bangkok

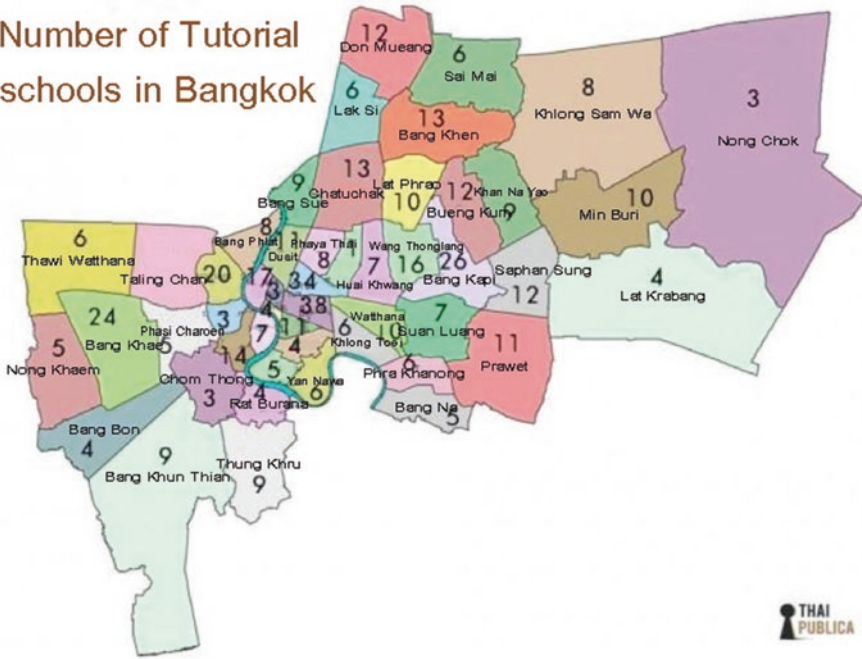


Fig. 25.2 Location of registered tutorial schools in Bangkok (from 2012 to 2014)

Number of Tutorial schools in the Northern part and the Southern part

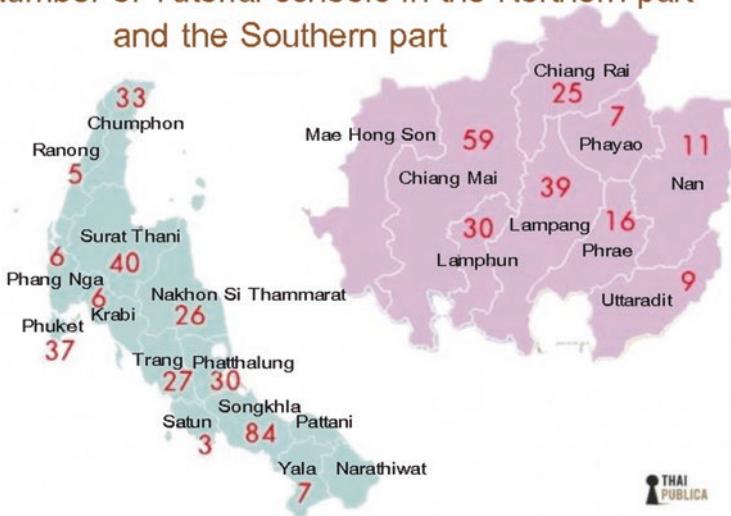


Fig. 25.3 Number and location of tutorial schools in the northern and southern regions

Number of Tutorial schools in the North-eastern part

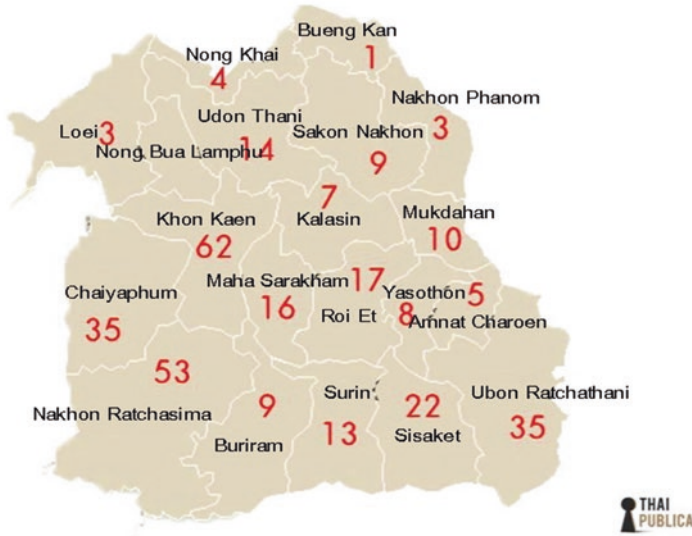


Fig. 25.4 Number and location of tutorial schools in the northeast (Isan)

Number of Tutorial schools in the Central Thailand

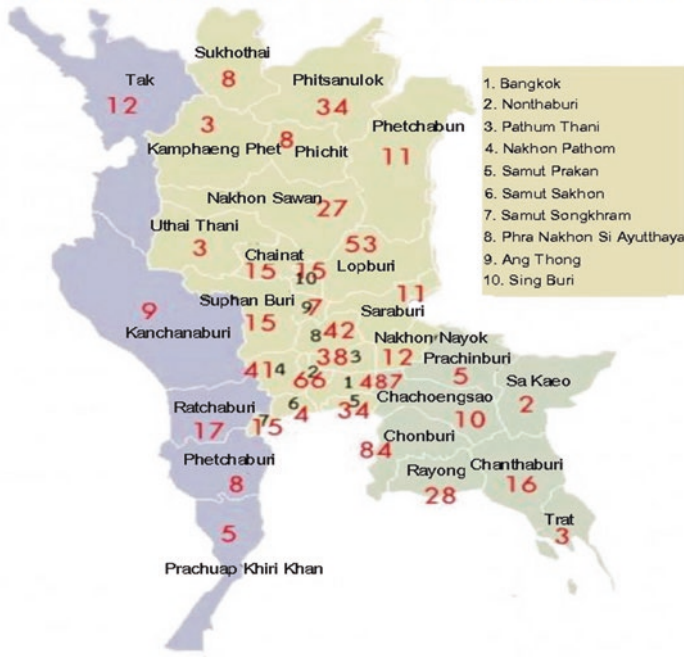


Fig. 25.5 Number and location of tutorial schools in Central Thailand

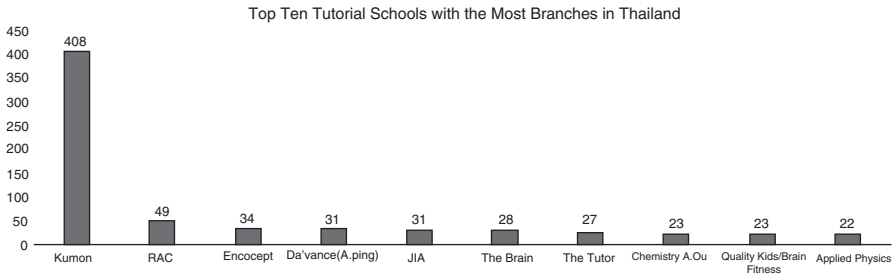


Fig. 25.6 Top ten tutorial schools with the most branches in Thailand (*Source: Thai Publica 2013a, b*)

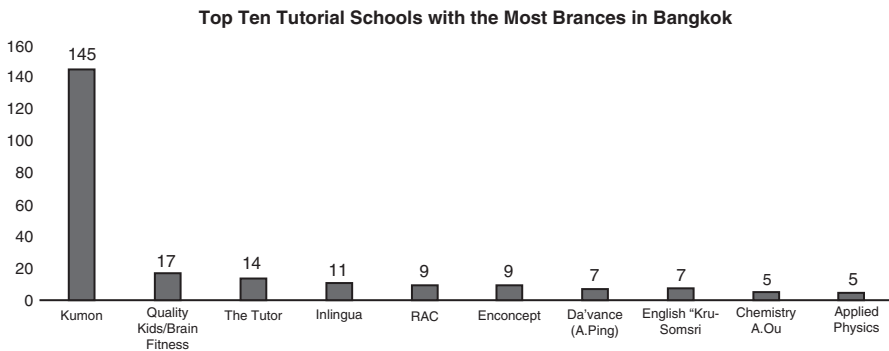


Fig. 25.7 The top ten tutorial schools with the most branches in Bangkok (*Source: Thai Publica 2013a, b*)

schools in total, representing about 70% of all the tutorial schools with the official registration issued by the Ministry of Education.

Figure 25.6 shows the top ten tutorial schools that have branches throughout the country. Most schools have dual systems: level-based and subject-based. The level-based approach offers supplementary tutoring for students or learners from the kindergarten through Grade 12. The most popular courses tend to be specially arranged for those who would like to get acceptance into Grade 1, Grade 7, Grade 10, or university/college, including the preparatory courses for those who aim to go to the cadet (such as army, police), aviation, or air hostess schools, for example. The subject-based approach focuses on students or learners with a special need to improve or enhance their knowledge and skills in some specific areas, such as English for business purposes, advanced mathematics, physics, or chemistry. Besides the normal systems, there are some tutoring centers which offer only a course or program in a specific subject, such as applied physics offering only physics courses, chemistry A.U. concentrating only on chemistry, and “enconcept” emphasizing only English competency.

Figure 25.7 shows the top ten tutorial schools with the largest number of branches or affiliates in Bangkok. Kumon tends to be the most renowned tutorial institute

with over 100 branches around the capital city. It also has branches in neighboring countries such as Malaysia.

Figure 25.8 shows the private tutoring fees for Grade 12 students majoring in science-mathematics. It is found that the tutoring fees for a student are around 2000–2500 baht (or 200–250 baht per hour) on average for a single course that lasts 10 h (the exchange rate is estimated at 1 US dollar: 35 baht). Normally, a student takes a set of tutoring courses including different subjects/lessons. However, the fees double for those taking preparatory courses for O-NET, GAT, and PAT. That means, while taking supplementary tutoring, a student has to pay at least about 4400 baht for Thai social studies, 4000 baht for English, 6300 baht for mathematics, 5000 baht for physics, 6500 baht for chemistry, and 5000 baht for biology.

In summary, upper-secondary students will have to pay approximately 15,000 baht per semester for supplementary tutoring, provided that they take all the courses. For Grade 12 students, they need to pay an extra cost of about 3500 baht for preparation for the entrance exam to go to a university, provided that they choose to take all the subjects.

For those who hire a private tutor to give individualized instruction at their home, either to accelerate their academic achievement or to prepare themselves for the university entrance examination, each student will have to pay, at least, around 250–300 baht per hour.

The abovementioned information regarding the tutoring fees may be also applicable to those who are not majoring in science-mathematics but have to pay almost

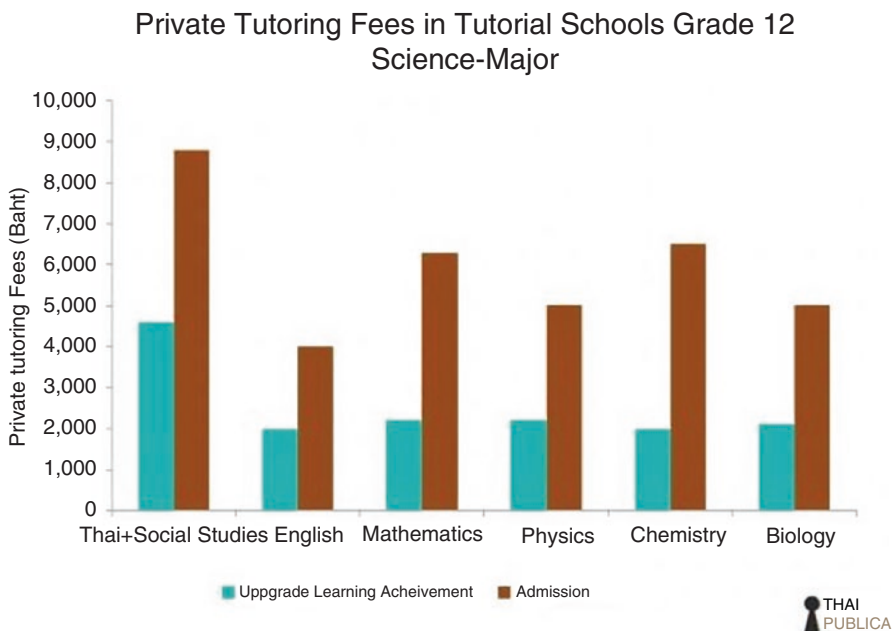


Fig. 25.8 Private tutoring fees in tutorial schools for Grade 12—for various subjects

the same fees, owing to the increasing fees of supplementary tutoring for English and other language courses (e.g., Chinese) that tend to soar in cost to have fees comparable to those for physics, chemistry, and biology courses.

Figures 25.9, 25.10, 25.11, 25.12, 25.13, 25.14 and 25.15 show some examples of well-known private tutoring schools/centers in Bangkok.

Certified by the Ministry of Education, Chaowarat Golf Academy offers nine-tiered golf courses, starting from beginner, intermediate, through advanced and professional levels, as well as some tailor-made courses befitting individuals who would like to practice and/or upgrade their skills in playing golf (from www.cgag-olfschool.com & www.facebook.com/chaowaratgolfacademy.) Also 54° Golf Performance is a well-known school for training young people in golf. Its Director of Golf is Aree Song, a Korean-Thai and former LPGA star. Also in 2012, the Pro Tour Golf College Thailand was launched. This is an area in which Thai women are now really beginning to excel. There are now ten women playing in the LPGA (Mickey 2015), and Ariya Jutanugarn is currently ranked no. 2 in the world and won the 2017 ESPY award as the world's best female golfer. In 2016 she was the Rolex LPGA player of the year.

In addition to the abovementioned tutoring schools/centers, there are other cram schools popular among teenagers and parents, such as the Brain (<http://www.weby-thebrain.com/>), English by Kru Somsri (<http://kru-somsri.ac.th/index.php>), Enconcept by Kru Pi Nan (<http://www.enconcept.com>), KPN SMART by Kru Lilly (<http://www.kru-lilly.com/>), etc.



Fig. 25.9 “Ideal Physics” tutoring center certified by the Ministry of Education, Thailand (From <http://theideal.xyz/footer/branch.php>)



Fig. 25.10 The renowned “Kumon,” having many branches around the country and even abroad (From <http://th.kumonglobal.com/page.jsp?id=8157&version=eth>)



Fig. 25.11 The tutoring school of Ajarn Ping’s (Davance), with the unique emblem of nine bricks signifying construction of knowledge for the progress of learners (From <http://www.davance.com/davance2014/index13102559.php>)



Fig. 25.12 “Sup’K” Math Tutoring Center (From <http://www.supk.com/>)



Fig. 25.13 “Ajam U” Chemistry Tutorial Center (From <http://www.chem-ou.com/about>)



Fig. 25.14 After-school tennis classes offered at Impact Arena, Muang Thong Thani, Nonthaburi, Thailand (Photo courtesy of Gerald Fry, 2016)



Fig. 25.15 Chaowarat Golf Academy

25.8 Some Drawbacks of a Private Tutoring System As It Both Reflects and Contributes to Social Inequality

One of the most critical issues surrounding the private tutoring system and its pros and cons is “social inequality and cohesion.” Bray and Lykins (2012) argue compellingly that private tutoring may significantly exacerbate social inequalities. In Thailand as well as other Asian countries, it is quite evident that better-off or more prosperous parents or families are able to invest and obtain greater quantities and better qualities of supplementary tutoring in comparison with those less well-off parents or families. As the tutoring industry has dramatically grown throughout the country, it comes to offer a diversity of tutoring forms, some of which are available at lower cost, such as large classes provided by tutoring companies with contributions of star/charismatic tutors. Nevertheless, many children from disadvantaged families cannot access even the less expensive forms of tutoring due to living in remote poorer areas. The very remote province of Bueng Kan in the northeast, for example, has only one coaching school, and three other provinces in remote areas

have no such schools at all (Nong Bua Lamphu in the northeast, Narathiwat and Pattani in the south).

Concerning the challenges for social cohesion that arise from private tutoring, Heyneman (2012) also identifies various elements of corruption that are associated with the sector in many countries (Hallak and Poisson 2007). This could be either at the regional, national, or the local level, when teachers themselves offer private lessons and impose undue pressure on students to take those, as indicated by Bray (2003), Dong et al. (2006), Dawson (2009), as well as Bray et al. (2016a, b). Those teachers may reduce their efforts in the mainstream education and choose to reserve their energies for their private rather than public work. Or a problematic system may arise in which large companies or tutoring centers claim to have inside knowledge of examination systems. They may pay people to copy some exam questions while taking tests. They could make any questionable statements in advertisements and/or pressure the government to waive regulations (Bray and Kwo 2014). Such practices raise displeasure among stakeholders who feel disadvantaged by the practices, and they raise serious ethical issues as well.

In short, might equality, equity, efficiency, and quality all be adversely affected from the interactions of the shadow and the mainstream systems? In most problematic cases, teachers who are also tutors, providing extra tutoring for their own students, may deliberately reduce the content during regular lessons in order to secure some benefits to be obtained from the rising and ongoing students' demand for their private lessons. Even worse, some tutoring companies may recruit or take away the best teachers from the mainstream school system. This is a serious "internal brain drain" issue.

Thus, despite being recognized as a form of private "supplementary" education, private tutoring, known as "shadow education," from the perspective of the mainstream, may concurrently have many adverse as well as positive impacts (Bray and Lykins 2012).

25.9 Overall Assessment of the Shadow Education System in Thailand: Its Benefits and Costs

To define a set of suitable policies and guidelines for "shadow education" or the private tutoring system, policy makers, administrators, practitioners, and all stakeholders need to assess carefully and critically the following advantages and disadvantages of such a system, as indicated by the Office of the Permanent Secretary, MOE (2015).

1. The private tutoring system does help boost confidence and readiness of students in taking examinations. In general, the tutor will collect all the practical techniques in doing a test or examination, based on the data bank of exams taken in the past. They will let their student "customers" practice on various sets of questions taken from the said data bank, prepared in the form of elaborately deco-

rated portable handbooks, workbooks, or manuals. This helps the students easily get accustomed to any complicated questions, providing them with some useful guidelines for any similar sets of exams they are supposed to handle in the future. Besides practical tips and techniques, the tutors may also gradually impart to their students some valuable “basic concepts” they can apply in the formal classroom and for their further study.

2. Shadow education can help broaden the students’ views, knowledge, and experience, focusing on integrative learning. For instance, when the English tutors teach about mosquitoes, they may provide the students with a useful tip or idea that the thin are more likely to be bitten by mosquitoes than the fat, as mosquitoes have the heat-seeking radar prone to be possessed by the thin rather than their chubby peers. Such a tip or idea and many more can be applied in their everyday life.
3. Private tutoring assists the students in reviewing all the content of subjects and material they have studied throughout an academic year. Normally, while taking a supplementary tutoring course, the tutor will help them review the lessons they studied in school to retrieve some knowledge and skills existing in the key lessons. Moreover, they will have a chance to grasp some new knowledge and lessons in advance prior to advancing in the school system.
4. It is believed that supplementary tutoring helps upgrade the students’ test scores both at school and in national and international tests (such as the TOEFL examination).
5. The tutors may tend to be more relaxed and friendly toward learners as compared to teachers or instructors at school. So the learners are likely to talk with and ask any questions as well as discuss any problems with the tutor. This significantly helps reduce the “generation gap” and the “status gap” between the tutors and the learners. Also the instructors are not grading and evaluating the students as in the normal classroom setting. They are there simply to help them to learn the subject matter well.
6. The students will have a chance to meet with new friends from other schools or institutions with whom they can share information, ideas, and experiences. In addition, they tend to know the progress of their peers from other schools or institutions. This usefully helps motivate them to get well-prepared for any tests or examinations.
7. Coaching schools (e.g., on demand) may introduce innovative pedagogical approaches such as “blended learning” (ThaiPublica 2016).

Despite these many positive contributions for students and the education system as a whole, shadow education also has some serious drawbacks and related negative images, from the viewpoint of some educators and concerned stakeholders, which can be summarized as follows:

1. As most tutoring centers do not have any monitoring system for tracking student absences, this leaves a gap for some students who are not really interested in supplementary tutoring courses but may use them as an excuse for not being at home nor at any places they are expected to be.

2. Students and parents have to “squander” a huge amount of money on private supplementary tutoring as a number of tutoring centers may opportunistically set costly and unreasonably high fees, plus some additional expenses for books, worksheets, and supplementary documents. As a result, learners from low socio-economic family backgrounds lack access to such services.
3. Some private tutoring centers only focus on imparting to the learners a large number of shortcut techniques for handling certain questions, especially those complicated and challenging mathematics problems. Therefore, instead of in-depth learning and grasping the material in a suitable and correct manner, the learners tend to use those shortcut techniques just as a pathway to pass a test and get a better score, without realizing the importance of mastering genuine knowledge, skills, and deep understanding of the subject matter.
4. In some circumstances where the learners do not have any chance to have personal interaction with some star tutors, they can only learn from the TV or video clips while being packed in a small room with hundreds of peers or classmates. This creates an obstacle to the “student-centered” instruction approach which is a critical part of the education policy on learning reform.
5. The private tutoring system may not enable any real dynamism to develop between the learners and their groups of peers who only spend a few hours or a short period of time together. So it might be difficult for learners to create long-lasting or sustainable relationships with their peers or tutors at the tutoring centers and to adjust their behavior and attitudes appropriately toward switching between self-learning and team learning.

25.10 Strategies and Guidelines for Solving the Problem of Tutoring

Related to this critically important policy issue, OPS (the Office of the Permanent Secretary), Ministry of Education (2015), proposed some strategies and guidelines for dealing with the private tutoring issues. Many of these relate to shadow education indirectly not directly and relate to improving regular schooling and liberalizing the examination system so as to lessen the appeal of private tutoring. These strategies can be summarized as follows:

1. To motivate and encourage a lively school with a holistic management approach to elevate educational quality comprised of the following three key aspects:
 - 1.1. Revision of the learner’s goals. It is necessary to enhance understanding of teachers and educators that the true goal of education provision is to prepare students well for the future equipping them with twenty-first-century skills, e.g., creative thinking and leadership.
 - 1.2. Improvement of a dual system of instruction consisting of the teacher’s role as a facilitator or a consultant who imparts to students the desirable charac-

teristics and skills. Development of professional skills for teachers through a training program focusing on an innovative approach to learning management which emphasizes the process-oriented skills and coaching.

- 1.3. Restructuring the management system having school administrators as instructional leaders who concentrate on developing school curricula and adjusting instruction timetables as well as learning management approaches to fit in with the learners of different levels and ages, from either the formal, nonformal, or informal education sectors.
2. To produce and provide learning media, e.g., online lessons, web pages, and Internet, as tools to widen access to information, anytime, anywhere, and on any kinds of best practice and lessons learned for teachers, learners, and parents.
3. To reform the system of admission and student selection which should focus on the real capacities of students through application of the “e-portfolio,” to be used as part of an evidence-based admission. This can be used alongside the existing test-based system that should be conducted in a specific scope defined by the core curriculum of basic education for each level of learning.
4. To make a shift of paradigm in the management system of the Ministry of Education which could be divided into four parts:
 - 4.1. Defining an acceptable ultimate goal of national education management to respond to the current trends and changes that emphasize practice-based learning and learner-oriented education provision, as well as minimizing or annulling the exclusion of those weak or slow learners.
 - 4.2. Decentralizing authority and reforming management approaches by targeting resources on a basis of need to the disadvantaged, rendering autonomy to large-sized schools fully endowed with resources and applying a demand-side funding approach to help widening access and opportunity for service users (students and parents) to choose schools that best suit their needs, including construction of a “Credit Bank” (or collection of knowledge and experience) system, which usefully reflects the actual capacity of learners and is widely accepted and could be transferable to each level of the school system.
 - 4.3. Promoting and supporting good students with high academic performance to become teachers, as well as keeping good teachers in the profession.
 - 4.4. Launching a set of measures to monitor and control the quality of tutoring schools/centers.

25.11 Policy Implications

The extensive data on shadow education presented in this chapter and the related research-based analyses by scholars and experts examining its impacts on the mainstream system, the society, and groups of stakeholders including teachers, learners, parents, and other parties concerned have important policy implications. Those as

well as the proposed problem-solving strategies developed by the Office of the Permanent Secretary, Ministry of Education, lead logically to a set of policy suggestions to cope with the current situation and to prepare for the future of shadow education. Also, the abovementioned positive versus negative effects and impacts of shadow education on students and the education system as a whole emphasize its advantages in terms of providing students and learners with more confidence in taking any kinds of tests or examinations and more chance to gain additional knowledge and experiences outside school in a more relaxing atmosphere. However, students, parents, and all the parties concerned should not overlook some important possible drawbacks regarding the social and quality issues, such as deterioration of the real and deep understanding of the subject matter and non-sustainable development of long-lasting relationship between students and peers, as well as their instructors known as “tutors.”

First and foremost, both more rigorous quantitative and qualitative studies are still needed in the area of the private supplementary system in Thailand in order that educators, policy makers, administrators, and all the parties concerned can use them as fundamental data for formulating and launching appropriate policies, strategies, and guidelines that are consistent with the context and effectively and efficiently serve the public interest. For example, as suggested by Rattana (2014), future research should concentrate on the development of curricula, quality assurance, and assessments of the qualifications of tutors. Also, other issues, such as public-private partnerships and corporate social responsibility (CSR), should be addressed, as proposed by Ekamorn et al. (2013).

Secondly, the assessment and selection systems of any schools and higher education institutions should be reformed, being transformed to be more specifically subject-oriented and to have multifaceted or various assessment approaches, apart from using only the test scores on general subjects to evaluate a student’s achievement, aptitude, and potential (Abeles 2015).

The third domain calling for particular attention concerns modification and enhancement of the quality of the regular school curriculum, so that shadow education becomes less necessary. Particularly important is having a curriculum which provides students with higher-order thinking and problem-solving abilities and critical twenty-first-century skills.

Another intriguing issue relates to harnessing the benefits of new technologies, such as online software, iPads, and tablets to enable students, in the ICT era, to have access to knowledge and information anytime anywhere (November 2010). If students learn how to learn on their own, they can reduce the need for expensive supplementary courses and tutoring. This could bring about critical changes in both mainstream schools and tutoring centers.

Another significant issue relates to the management and implementation of the regulations on private supplementary tutoring. This concerns quality control and standards of the private tutoring system, the licensing of tutors and tutoring centers, as well as the permissibility or limitation of mainstream teachers to collect fees for private tutoring of their own students.

Since nearly all tutoring centers are for-profit, there is the current hot issue of their taxation. Could revenues generated from such taxes be targeted to provide special assistance to disadvantaged students with high potential? Such a policy would enhance equity in society and educational opportunity for all.

Finally, finding appropriate partners becomes one of the most significant approaches to sustain the balance between maintaining the quality of the mainstream schools and upgrading standards and excellence in education through educational services offered by the shadow education sector. Therefore, the mainstream schools and the government, in cooperation with the civil society/the community and the teacher council/union/association, should initiate and develop various forms or categories of partnerships with tutoring institutes to set up a suitable kind of “safety net,” especially for those students with poor performance, those who really need special assistance, and those with significant unrealized potential. At the same time, they could actively cooperate in supporting those with high performance and potential in finding opportunities to enhance their knowledge and capacity to be able to compete successfully in national, regional, and global communities and to bring pride and prestige to their country.

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Chapter 26

Thai Alternative Education



Prapapat Niyom

Abstract This chapter on alternative education in Thailand presents a variety of evidence which reflects the development and expansion of alternative education in Thailand during the past 30 years. It discusses the social context and dilemma of a learning society. While the conventional education system offers single standard-based curricula covering preschool and kindergarten, basic education, and vocational and higher education, small groups are responding to the varieties of demand and creating innovations focusing on outcomes and the quality of individual learners.

The content in this chapter covers three major areas: firstly the terminology and approaches of the first influential alternative schools and their impact on subsequent developments; secondly, the evolution of the contexts of alternative education for quality learning and sustainable living; and thirdly, the variety of providers and their innovations of creative arrangement of the education system while struggling with the rigid official bureaucratic system of the regulators.

Importantly, from this chapter it can be seen that while the government's conventional education system is limited and struggling, stakeholders in the society are gradually becoming aware of the important goal of human development through the education system for achieving better citizens and declaring this need as paramount as in the examples given. No matter what difficulties these leading catalysts of so-called alternative education face in being accepted by the conventional system, there is no halting the growth of education in Thailand for self-directed learning and sustainable living for this twenty-first century.

26.1 Introduction: The Historical Evolution of Alternative Education

After reviewing diverse documents about alternative education in Thailand, three stages of development have been identified. The impact of such alternative education on improving the quality of learning and enhancing human values in education

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has been clearly documented. Assuming a demand-side orientation toward education, these trends in alternative education are likely to expand and be more broadly disseminated throughout the country in the future. But it was also found from this research and reports of mismatches that these alternative approaches have been limited by state school regulations which lead to different purposes and a different system of administrative management. This chapter shares valuable background accounts of each important alternative education movement and the changing paradigms in education among the new innovative providers. It also explores how they have merged together and established self-organizing networks. Hopefully, this research will contribute to improving the true value of learning and thereby enhance the quality of Thai citizens (Suphat 1999), important for the future of the country.

26.2 Terminology and Paradoxical Approaches, the Main Stream Versus Alternative Education in Thailand

The term “alternative education” was formally introduced in the Constitution of the Royal Kingdom of Thailand 2007, article 48, in order to give alternative education the same rights, protection, and support from the government as exists for vocational and private education, for example. This status guided by the law placed alternative education clearly outside the scope of basic education. Moreover, in the 1999 National Education Act (ONEC 2001), it is stipulated that this type of education is “not included” in the three major official education systems (the formal, the nonformal, and the informal systems).

As a result of the 1999 law, the management of alternative education is autonomous with no governmental department directly responsible. At present, it is partially attached to OBEC and its local offices but without any designated officer responsible for alternative education. Actually, during the past three decades, the existence and practice of alternative education provided through different approaches has been reflected in more concrete, innovative, and substantial purposes going well beyond the meaning stipulated by the law. It could be noted that these alternative cases shared a few core concepts related to essential learning outcomes, such as core competencies, skills, and values, which were rarely found to be systematically evaluated in basic mainstream education.

Consequently, another word emerged which provides more insightful meaning than alternative education. That is *unconventional education* (Morrison n.d.) which can result in both broader and deeper quality, especially reflecting the paradigm shift in education, such as the learner-oriented approach leading to more active rather than passive learning. Besides, both alternative and unconventional education share the same core concept emphasizing the importance of human values. They also reflect out of the box thinking and practices not found in the conventional education system. Currently educators in this network of either alternative or

unconventional education providers would likely agree on the following meaning of this type of education:

Alternative education is the more flexible management of education, in order to respond to the human ability to learn which naturally has a very wide range of varieties (see Chen et al. 2009; Gardner 2011). In terms of learning processes, they creatively draw upon principles of religion (moral education), learning philosophy, democracy, and the basic human right to learn and realize one's potential. The main target of alternative education is to enhance the ultimate human character of all learners.

However, the first clarification of the term “alternative education” was introduced in an important research paper done by Suchada Jakpisut (2003). The practices of alternative education were identified and described for more than 20 years before its incorporation into the 2007 constitution. Suchada in her systematic study analyzed the background, evolution, and identification of alternative education initiatives in Thailand. Based on her research and related data collection, she has grouped these innovative, nonconforming schools and learning centers into seven definitive diverse genres as follows:

1. Homeschools, both single and clusters of families and their networks
2. Alternative education as distinguished from conventional schools in the state system
3. Local-wisdom teachers
4. Religious-based practices and development approaches (e.g., the Buddhist pre-school run by Mae Chee Sansanee at the Sathira Dhammasathan Center)
5. Nongovernmental organizations supporting and offering special training courses
6. Alternative education through social engagement activities
7. Mass media and related learning resources being actively utilized

Research for this chapter has revealed that there is a growing and emerging demand for different types of education in Thailand related to critically needed learning outcomes which could not be provided by state conventional schools or institutes. Needed are those special transformative competencies and skills, including being able to read the reality of the rapidly changing world like the economic systems which affect the well-being and livelihood of diverse localities. These necessary or appropriate skills and knowledge require different learning activities and the local wisdom-based learning, especially to empower and revitalize those in local rural community contexts. The research and relevant empirical data collected suggest the normative proposition that education systems should respond to the needs, problems, and real-life contexts rather than solely to “standard quality” which may be hard to measure reliably and validly (Abeles and Rubenstein 2015; Worthen 2018) (see also Chap. 19). It has been found that there are nine important characteristics of alternative education in Thailand, different from conventional schooling, as shown in the following list:

1. It is learning associated with real life involving a social circle of students.
2. It is a learning process stressing the *continual* transmission of learning.
3. It is the management and the process involving active public cooperation.

4. It affects the relations among related individuals and communities.
5. There are different concepts, forms, and methods of learning being utilized.
6. The context and the process of learning are primarily problem or community-based.
7. It is a highly interactive process of learning among learners.
8. It is the nongovernmental learning provision and does not rely on the state's curriculum.
9. Alternative education aims at particular subjects or target objectives, i.e., the development of the quality of life (Suphat 1999), achievement of potential, self-world view knowledge, and society-community knowledge.

Finally, Suchada (2003) concluded in her research on the meaning of alternative education that it is difficult to settle upon only one meaning for interpreting alternative education in Thailand which is rather diverse. Each interpretation derives from different conditions of problems and sociocultural contexts. Even though they share the same core concept and objectives, they still had different unique characteristics depending on each regional-based context. However, her research provides us the substantial or concrete approach and understandable categories of alternative education at that time.

After this influential research became public, the new plan of national education reform took place with the passage of the 1999 National Education Act (ONEC 2001). During the subsequent decade, the development of alternative education spread throughout the country. The more demand-side-oriented educational provisions were created for the different groups of learners, ranging from the school dropouts, special needs students, or different social context-requirement learners, troubled teenagers from broken families or those in juvenile detention houses, and even the high-end groups from well-to-do families who searched for better learning innovations and more challenging education. There was the development of self-sustainable community schools, community colleges, alternative medicine training courses, and small groups formed for hill people's education. The sufficiency-economy approach (*settakit pho phiang*) (เศรษฐกิจพอเพียง) was also introduced in both regular and alternative schools. Demanding learners were facing the situation of "being unable to conform" with the basic standard education and critically needing the "out of standard curriculum." Later on the mind-set of understanding alternative education was neither limited to the previous definition identified nor the application from the law, but instead tended to cover all kinds of education dedicated to individual human resource development in diverse dimensions. The alternative education system in Thailand was clearly competing with the mainstream education system as long as the latter was limited to the traditional supply-side-oriented approach and too rigid to develop the autonomous management structure at the school level to respond to the real demands of diverse learning in a rapidly changing world.

In conclusion the above three different interpretations of alternative education reflect the existing situation of education in Thailand for those not satisfied with the

conventional education system. Moreover, it should be noted that there is currently inadequate research-based policy in education in which the empirical evidence informs the defining of the targets of education as an integral part of the national agenda to provide the blueprint for the strategic planning of human resource and educational development to meet the critical skill requirements of the twenty-first century (Delors 1996).

26.3 The Evolution of Genres of Alternative Education in Thailand: The Variety of Innovations and Learning Processes and Related Networking

The utilization of different approaches or ways to interpret the meaning of alternative education has created some complications to understand it with a “single meaning,” for Thai society which is comprised of more than 70 ethnic/linguistic groups (see Chap. 15). It is necessary to examine the history of alternative education and the way it was used for different purposes by various agents or organizations. In this chapter alternative education is presented from the viewpoint of four major categories of beneficiaries: (1) those being homeschooled, (2) rural students, (3) those in hybrid models of small-sized schools with community participation, and (4) those in privately owned alternative schools. Related to the goals of these diverse providers, this chapter identifies the results for learners, both in terms of outputs and outcomes.

26.3.1 Homeschools, the First Original Model of Alternative Education in Thailand

26.3.1.1 Moo Ban Dek School

Tracing 30 years back to the very first innovation of the alternative schools in Thailand, the Moo Ban Dek or Summerhill concept school was most well-known (Ayers and Neill 2003; Neill 1960). This courageous initiative emerged in the remote area of Kanchanaburi Province in western Thailand, the home of the famous Bridge on the River Kwai, even though there were few families who started their homeschools before they were recognized in the 1999 National Education Act. The main purpose was to find a viable alternative for the local village students who were facing difficulties with the conventional teaching and learning in public schools. The reason was primarily that of the changing situation of socioeconomic contexts in the village from an agricultural basis and self-sustainable livelihood to the modern consumerist with industrial dependence. The negative results were the

migration of farmers to urban industrial areas and at the same time an opposite flow, the expansion of pseudo development and urbanization into the village life. The most critical impact was the disruption of family intra-relationships which affected the children, especially teenagers. Since their parents also needed to survive and support their family with earnings, the more they sacrificed through their hard work, the more they left their children with grandparents, relatives, or alone on their own responsibility. Such families have been called *khraphkhrua waeng klang* (ครอบครัวแห้วกลาง) (“families without a middle”) (Fry 2015c). The teenagers then were vulnerable to become dependent on *naklaeng* (นักเลง) (village gangsters). It was disappointing that the local conventional schools had not adequately responded to such situations of disrupted families and uncontrollable rapid modernization influencing young people. Researchers, Pipop (1983, 1998) and Rachanee (2005), became engaged in studying this situation of how the young generation learned to live and were able to understand themselves as well as the rapidly changing society around them. They set up Moo Ban Dek “School.” Its curriculum was mainly designed to develop life skills useful for managing conflicts and contradictions among children and in the family’s daily life. It was more than a “school,” but the children’s own family. Another purpose was the development of career skills, in order to enable students to earn their living on their own through self-sufficient farming or by becoming small-scale entrepreneurs creating some other small local enterprises. These two local school leaders were fighting very hard to have their “school” registered by OBEC. Later on, this school, supported by the Children’s Foundation, was to become the leading institution for other networks of similar kinds of schools, homeschools, or learning centers.

It should be noted here that Moo Ban Dek “School” also helped initiate and gave support to the “homeschool” networking for a long time. Until 2012 around 80–90 new homeschools had to register with Roong Aroon School because of the limited funding and management support available. However, Moo Ban Dek is still the “dream” of an idealistic independent “school” for children.

26.3.1.2 The Association of Thai Homeschools: Families Self-Providing Education

The homeschool model of families self-providing education was popular among those parents who were interested in finding a more appropriate education for their children than the conventional school can offer. They prefer to have more freedom to learn and to integrate such learning into their family’s activities. By this way of learning, mostly learning by doing, the children had more advantages in becoming familiar with the varieties of learning activities available to diverse individual learners. At the same time, they may lack the opportunity to share and learn with others which was also an important factor for expanding their knowing and sharing skills. To overcome this disadvantage, they formed the group of families to join

learning activities together from time to time. The other obstacles for the management of homeschools were the submission to the official registration with the Basic Education local officers who were not able to consider each home's curriculum. To solve this problem, the first group of families decided to register their Moo Ban Dek School in Kanchanaburi Province which enabled their children to sit for either the IGCSE British standard test or for the GED American standard test. During the past 15 years, more than 20 homeschools were relying on this management option as well as on their own experimentation. The results were that a large number of students graduated with the experiences of good practice cases. A few years ago, Ajarn Rachanee Tongchai had some health problem and needed to reduce her work in supporting homeschooling. This affected about 90 new homeschools which had to move to register with Roong Aroon School. The small voluntary management staff was established to handle this business to encourage sharing and learning together. Some families also agreed that their children would take the Ordinary National Education Test (O-Net) test while some did not. At the beginning these families joined together in the formal setting of the Association of Thai Homeschools which was the pioneer group actively in debate with the MOE. They've determined the objective of having a better education for their children and having the right to provide such education in their own settings. Later on, there was another group of about 100 Islamic homeschools established to accommodate their children's need to pray five times a day.

To close this important section on homeschooling, I would like to share the amazing story of Dr. Pichamon Yeophantong, a really gifted young Thai lady, whose family realized she could flourish in a homeschool environment. She was able to finish high school at age 13 and complete her BA at age 17, MA at age 18, and PhD when only 22. At age 23 she completed a postdoctorate at Oxford and, at age 24, a postdoctorate at Princeton. At the young age of 25, she became a faculty member at the University of New South Wales in Australia. This is an inspiring example of the *realization of potential* objective associated with alternative education. Another example is Dr. Sippanondha Ketudat who was largely homeschooled, then went on to earn a doctorate in nuclear physics at Harvard, and later served as the Minister of Industry and also the Minister of Education (OEC 2006, Sippanon and Textor 1990). Obviously these two cases are clearly exceptional and not typical, but they do show the real potential of homeschooling for those highly gifted children who may not be challenged by regular schooling and whose pace of learning could be much faster.

26.3.2 Alternative Education for Rural Students, Families, and Communities

Looking at the direct beneficiaries, that is, the learners and families within these networks, there have been rather large numbers involved in this group. There have been primarily four learning networks serving the students in rural areas. They were

Table 26.1 The famous leaders in local agricultural learning centers

Name of the leader	Province
Por Lek Goodwongkaew	Sakhon Nakhon
Kruba Suddhinun	Buri Ram
Por Khamdueng Pasi	Buri Ram
Pooyai Wiboon Khemchalerm	Chachoengsao
Kru Prayong Ronarong	Nakhon Si Thammarat
Longpor Nan (senior monk)	Surin
Honghien-Suebsan-Poompanya-Lanna	Chiang Mai

quite stable, established after many years of hard work with some good practices and worthy lessons learned as follows:

26.3.2.1 A Pioneer Group of Local Agricultural Learning Centers

These provide an interesting scheme of learning centers plus basic education. The variety of the providers were found to include those scholars and monks who worked closely with the villagers in order to help develop the commitment to maintain the local wisdom in managing self-sufficiency economic systems friendly to the natural environmental, arts, and local cultures. The pioneer of this group gradually emerged with the single purpose of “learn to acknowledge actively the local wisdom agriculture and natural resources for the survival of village livelihood.” The famous leaders in this group were individuals such as (Table 26.1):

These pioneers tried to initiate the learning courses for the young children, either the students in public schools or the teenagers having dropped out of regular schools. Furthermore they have been sharing their experiences in many different conference platforms which resulted in their being able to speak out and interpret the advantages of how the Thai traditional and cultural society is currently challenged by powerful forces of modernization and globalization. They were respected for introducing a best practice model of innovative *holistic learning* approach relevant for nearly all learners. These leading learning movements and their lessons learned have influenced subsequently the dissemination of many more new learning centers and alternative education programs. This development of other alternative or semi-alternative school curricula based on the above experiences was offered by many different providers and beneficiary groups, many in the rural areas. The following are concrete examples:

There were a large number of agriculture-based learning centers established throughout the country. This section primarily draws upon some information from the 2nd Rapee Seminar, conference proceeding paper on “The Local Wisdom of Thai Livelihood: A New Paradigm of Agriculture.” These agriculture-based learning centers were established by self-initiators who always highly inspired and welcomed all the youth to participate in camps and training (Table 26.2).

Table 26.2 Agricultural-based learning centers

Name of school	Name of leader	Location (province)	Concept driving the school
1. Mab-Eurng agriculture learning center	Dr. Wiwat Sulyakumtorn	Chachoengsao	This project was mainly created by Dr. Wiwat Sulyakumtorn who followed the concept of the “sufficiency economy” (<i>settakit pho phiang</i>) introduced by HM King Bhumibol over 20 years ago (Grossman 2012). With the clear concept of “cultivating soil in order to cultivate plants,” Dr. Wiwat had strong determination to make it possible to be learned for most Thai people by “doing it yourself.” He provided the training course at the Mab-Eurng center. The learning activities were designed to foster hard work on the farmland in order that greater numbers of Thai people should understand and realize the self-sustainable socioeconomic way of life. From a holistic point of view, it was the learning to understand oneself relating to the management of those natural resources, soil, water, and forests. Later on, more than 50 networking centers were gradually established throughout the country
2. Saun Dhamma Kaset	Dr. Permsak Makarapirom	Prachin Buri	“Doing farm work like the way of meditation”
3. Saun Loong choke	Chokedee Paraloganont	Amphoe Wang Nam Khiao, Nakhon Ratchasima (Korat)	“Agriculture is a responsibility of human being, not only the man’s duty”
4. Balancing agriculture learning center	Tongchai Kongkalai	Amphoe Ongkharak, Nakhon Nayok	“Resolution of 1 million baht debt by 4 in 1 project” (there were rice plants, white shrimps, giant shrimps, and fish in the same one open pool)
5. A millionaire farmer	Chayaporn Promphan	Amphoe Bang Pla Ma, Suphanburi	“Those who want to be a farmer, have to be intelligent, considerate, delicate and determined”
6. Saun Phakdin	Siriporn Ghotechatchawalkul	Amphoe Dongpayayen, Nakhon Ratchasima (Korat)	

(continued)

Table 26.2 (continued)

Name of school	Name of leader	Location (province)	Concept driving the school
7. Green-net cooperative networking of fair trade(Saiyaipandin foundation)	Witool Panyakul		“Start changing from conventional practices to organic farming or agriculture,” this network covered about 769 families and 16,700 rais or 6600 acres
8. Alternative medicine	Dr. Keaw (Jaipheth Klajon)	Amphoe Don Tan, Mukdahan	“You are the 1st doctor who can holistically take care of yourself to have good health.” this group had established their 2–3 training centers more than 20 years ago

The results from the above learning centers were not provided through any academic evaluation. However, there has been a trend of a new generation of farmers who, even though they had graduated from university, yet returned to train themselves to resettle on their family’s farm. This phenomenon is reflected in the project, “*khon-klab-khuen-tin*” (คนกลับคืนถิ่น) (the return of the brave ones to resettle as farmers), with more than 400 training members registered in the project. This new trend runs counter to the past failures of agricultural education in Thailand. In the near future the above cases of training centers promoting organic farming or green agriculture should be accepted and categorized as one extremely important type of alternative education. They have also been developing their training courses in accordance with the requirements for credit transfer to the bachelor’s degree program in social entrepreneurship at the Arsomsilp Institute of the Arts, supported by the Roong Aroon Foundation.

26.3.2.2 Moral-Based Community Development Schools

The Samasikkha Seven Community Schools Network was established in 2007. The main concept of these schools centers around three goals: (1) practicing five key moral concepts, (2) developing practical career working skills, and (3) being knowledgeable. The key to its success was that it was a strong community-based self-sufficiency and “not-for-profit” organization. Actually, they have established a challenging model of a totally self-sufficient economic system within their seven communities network. There is no doubt that the school had the clear objectives in training students, parents, and communities to, a certain extent, become engaged contributors to the whole nation. At present, there are 444 students and 169 teachers in this network. Since the activities of this special citizen group seem to be more sustainable with green and clean marketable productivity, they were also considered to have a strong political impact on the country in terms of presenting an alternative development model.

26.3.2.3 The Ethnic or Indigenous Groups' Education, in Northern Provinces of the Country and Some Other Areas Along the Country's Borders

This group is categorized directly with the inclusion of special requirement learners who were the ethnic groups of hill peoples such as the Hmong and Akha and some other groups, although there were some public schools providing the standard kind of conventional standard curriculum for these students. It seemed to be the right way of developing all young people in Thailand to meet the same standard, either hill people or Bangkok students. But from the sociocultural dimension, one important aspect the educator should not overlook was their original values and cherished way of life. These groups of students came from a special culture and sociocultural context which, more or less, could be both advantageous and disadvantageous for their development. If possible, the external forces, like education should be used to strengthen their weak points while not bringing any threats to them or their cultures (Ramírez and Castañeda 1974). These young generations could grow up to be good Thai citizens while maintaining their inherent values of their distinctive cultural groups. During the last decade, the idea of integrating the local life skills and culture into the school lesson plan has been actively implemented. For the time being, what we found in parallel to the conventional education schools for those hill people students were the emerging of the so-called Education for Tribal Ethnic Groups. The development of 27 schools and learning centers networks, covering about 1000 students, organized a symposium in 2014, where there were reflections and presentations on the major aspect of how to maintain the ethnic value of living and respecting nature. The local mother-tongue languages, the local wisdom, and the artifacts were integrated into the school curriculum as well as the five major subjects of the basic standard curriculum. This educational innovation was popular among many schools, both public and private (see Chap. 15).

There are five examples of public schools which have been rearranging their school curriculum by integrating the 30% of local content into the regular curriculum. Some other schools decided to have a bilingual scheme curriculum, the hill people's language together with Thai language, supported by the Foundation of Applied Education. Certainly, there were three community-based schools, Morwakee, Monsaengdoa, and Hoyhinladnok, supported by the IEN International Ethnic Network. There were some learning centers registered to be community learning centers, such as those in Table 26.3.

Some other learning centers should be included here even though they were not established in rural areas, but they also are based on other religions. They were "Tarbeeyatul Islam" Learning Center in Bangkok and "Darul-ansori" Islamic Agriculture Learning Center, at Amphoe Bang Nam Prio, Chachoengsao Province. During the last 10 years, the local-wisdom training centers like "Honghein Suebsan Lanna" and, recently, "Mae-Khong Schools" played more active roles with public schools by signing MOU (Memorandum of Understanding) offering the special learning activities guided by the senior local-wisdom teachers. Some schools could integrate this program into their regular learning timetables as well. In the Northern

Table 26.3 Community learning centers

Name of the center	Province	Special characteristic
Jo-maloluela	Ban Soblarn, Amphoe Samoeng, Chiang Mai	Supported by Roong Aroon school foundation
Srisuwan Bansanepong	Amphoe Sankhlaburi, Kanchanaburi	
Ban-Houypan	Amphoe Chiang Klang, nan	Informal schools
Wat Phrabaromtat Doi-Pasom	Amphoe Samoeng, Chiang Mai	The teachers of this learning center were trained at Roong Aroon School
Lumnam Salawin	Amphoe hot, Chiang Mai	

part of the country, the Council of Tribal Groups was established to help guide the incorporation of special core values in education to either individual groups or to some public schools.

The results from these ethnic groups education were found to contribute to their strong networks and the good students' record of learning. Last year this network of different hill people's indigenous groups held a special symposium and disseminated their recommendations to OBEC, in order to adjust the basic standard curriculum by integrating the local objectives and learning outcomes into the regular school curriculum.

26.3.3 Privatization of Education for the Poor

Mechai Viravaidya's school (Bamboo School) and its network are under the umbrella of "privatization of education for the poor (Kornchanok 2018)." The first model of this school was launched in 1974, at Amphoe Lamplaimart, Buri Ram Province, Northeast Thailand. Prior to starting this school, Mechai was very well known for his success in promoting family planning in Thailand, through the establishment of the Population and Community Development Association (PDA) (D'Agnes 2001; Fry 2016). Through working in remote rural areas, he realized the importance of special quality education for helping poor rural families. He clearly proposed that the school could be a proper institution in training young children in the villages to have strong basic working skills which lead to the entrepreneurship and self-sustainability of their families. This school set the free tuition fee with strong engagement from the student's families who had to compensate for the free tuition by planting 400 trees in 1 year. The voluntary activities were clearly integrated into the school curriculum and learning schedule. The students play important roles on the school board. They mainly, for example, interview and help select the new teachers and also evaluate the performances of existing teachers for continuing their contracts.

Mechai also encouraged the students and their families to start their own businesses with small grants from some private cooperation's social responsibility funds. This has become a fair model for private participation in education. He trained the

students in management skills as part of the school curriculum. The student outcomes were profound resulting in core competencies and competitiveness. At present, Mechai expanded this kind of school approach into over 30 public schools in the nearby Northeastern region. Recently, he is promoting the transfer of credits of the students to submit as part of the 3rd or 4th year bachelor's degree program in social entrepreneurship at the Arsomsilp Institute of the Arts (Roong Aroon School Foundation), one of the major alternative higher education programs.

26.3.4 The Special Network of Small-Size Schools with Community Partnerships

These small size schools, under 120 students, actually about 13,000 schools in total, belong to OBEC, Ministry of Education, which identified them for potential closure due to their “uneconomic scale of management.” Unexpectedly a large number of these schools (around 200) had formed networks to share and learn from each other of their experiences in solving the same problem by their own efforts. They had created a reasonable model of being small but smart with the participation from community, nongovernmental, and private organizations.

The phenomenon of small-size schools gradually emerged in Thailand during the past several decades when the number of students in schools became increasingly smaller as a result of the decreasing birth rate. Consequently, the schools faced the problem of lacking adequate budgets for the infrastructure expenses and teachers, since these schools depended on their funding, based on the annual “per-head” budgeting model. Another factor contributing to the inadequate number of teachers was the low ratio of students to teachers resulting in not enough classroom teachers to cover every class (*khru mai krop chan*) (ครูไม่ครบชั้น), which adversely affects quality.

OBEC tried to introduce a special management strategy such as combining small schools with a larger school nearby (school consolidation), together with providing school vans for those who had to travel further from their home. These consolidation schemes of management could not be used in every case because the further from home the students had to travel, the more expenditures parents had to pay and the more insecurity there is for their children (road safety, e.g., being a real legitimate concern of parents).

Whether school directors or parents and villagers in particular local communities need to maintain the schools or not, they had to find the best solution for their children. Some parents and communities considered this difficulty and challenge as their special opportunity. They identified interesting and creative solutions involving two primary approaches. First, the parents and community played a role in fund raising and finding voluntary or extra teachers for maintaining the existing school within the village without any consolidation. Some schools were very old and have been built by the community, thus, having great meaning for their communities. They also serve as important community centers (Table 26.4).

Table 26.4 Examples of community-supported schools

Name of School	Province
Ban Mai Samakkhi	Surat Thani
Goodsatien school	Yasothon
Ban-tasatorn school	Nakhon Si Thammarat
Ban Donsai	Nakhon Si Thammarat (southern province)
Ban Samkha school and four schools	Lampang province

While the participation of parents or villagers helped maintain the school, they identified a second possible better solution to the small-school problem. Some started mixed-level classrooms (see Little 2006) and designed a school-based curriculum by integrating subject matter related to basic life-skill activities and established the necessary learning outcomes evaluation for their attainment targets.

This scheme was quite creative and was then applied in many other community-based schools. At present, there are two active networks including more than 200 schools. Some schools joined with Mechai's Bamboo School project which provides grants for building student entrepreneurship programs in the schools.

Even though these schools are public ones by their official management, they reformed themselves to some extent to become alternative ones. The result of these innovations was the performances of the teachers and good outcomes for the students. Many of the students were able to pass the Ordinary National Education Test (O-Net) with satisfactory scores as well as to develop their maturity in social and working skills. Probably the most important result was reflected in the students' conscious respect for the local, self-sustainable wisdom and realization of its values in their own lives.

It should also be noted here that there is a special group of over 400 local authority schools which previously were under OBEC. After the National Education Act was launched in 1999, they chose to move to be under local TAOs (local Tambon Administrative Organizations). In the past decade, they encountered difficulties either from inadequate budgets and teachers or the ambiguous or vague policies in education and excessive dependence on bureaucratic regulations and orders. Many joined the movement of alternative education with the hope that with greater autonomy they would be empowered to make changes and decide priorities by themselves.

26.3.5 Private Alternative Education

This section is based on a review of the excellent and important research done by Pokpong Chantawich and Sunthorn Tonmanthong (2012) and his team presented at the seminar on Revamping Thai Education System: Quality for All in February 2012. They identified clearly the approaches being used by these institutions

providing alternative education. Based on two main definitions of alternative education, (1) diversity of education responding to the different needs of the learners through the use of holistic education and (2) a high degree of autonomous school management, Pokpong systematically analyzed how the alternative schools differ from conventional schools. He delineated four special characteristics: (1) the alternative schools encouraging the value of life outcomes, such as positive attitudes for life and learning, morals, ethics, and self-respect; (2) learning and teaching innovations such as *integrating* subject matter, project-based learning, and learning by doing; (3) the appropriate learning resources being provided according to each innovation; and (4) school leaders having a clear concept and philosophy in driving the whole organization in the same direction. He also traced back the three stages of development, the beginning with pioneers, the 1999 education reform, and the movements within networking periods, ranging from 1979 to 1989, 1989 to 1999, and 1999 to 2009 to understand the necessary factors, the engagement processes of the networks, the pending regulations, and the results.

Moreover, the research also noted the important regulations and laws granting the possibility and permission for individuals, families, communities, private organizations, private business groups, religious institutes, single companies, and other social institutes to have the right and responsibility for providing any kind of education to meet the demands of learners. However, in the implementation of this law, there were difficulties encountered and a long journey involving debates and defending alternative approaches. Finally, given a lack of success in terms of actual practices, that provided the rationale for establishing an association of alternative education with participation widely from all related networks.

Building on Pokpong's (2012) research, two other influential movements organized by these major alternative schools should be mentioned here. The first was the recommendation that each school could design the basic curriculum to match their desired objective achievements for the learners. This idea was developed by Silawat Susilaworn and Surapol Thamromdee and proposed to the Office of the Education Council (OEC), in 2011. The 2nd research paper was the Development of Educational Standards and Indicators for External Quality Assessment of Alternative Schools and Specific Curriculum, by Sunisa Chuencharoensook and her team in 2012.

Pokpong's research covered all the dimensions of alternative schooling, including the comparative point of view, and empirically documented the positive performances of the alternative schools. More varieties of quality education could be achieved in Thai society which can lead to the promotion of the ultimate goal of human beings. Educational innovations could become good practice cases in these schools. For instance, integrated project-based learning or student-centered learning and the opportunity for autonomous school management could bring more responsibility for the students' performance compatible with the national standards. He concluded with some recommendations to the policy makers that the alternative schooling could be one way of revamping Thai education to reach higher quality and that these good practices and lessons learned can be widely disseminated to other schools in the country.

Table 26.5 Summary list of major genres and examples of alternative schools

No	Name of school	Genre of alternative education
1	Moo Ban Dek	Summerhill
2	Banruk Kindergarten	Waldorf, Rudolf Steiner
3	Roong Aroon	Private Buddhist approach schools or religious-based schools
4	Pitisueksa	Montessori
5	Montessori Phuket	Montessori
6	Somboonvidh	Montessori
7	Yuwamitr Kindergarten	Montessori
8	Yuwapat Kindergarten	Neo-humanism
9	Jutaporn Kindergarten	Private Buddhist approach schools or religious-based schools
10	Mechai Pattana	NGO, democratic, community oriented
11	Ploypume Kindergarten	Private Buddhist approach schools or religious-based schools

The list of the alternative schools identified in the research paper by Pokpong based on different sources and revised and updated (only one school was closed) includes the following schools given in Table 26.5.

These diverse private alternative schools were established through their own initiatives, and they were extremely determined to see the positive learning outcomes for their students. The uniqueness of this group was the “core values”-oriented curriculum with a holistic process of teaching and learning, ranging from clear objectives, creative learning processes, to appropriately aligned evaluation processes. The individual learners’ development was clearly reflected in their distinguished performances. The most important factor contributing to their success was the specially trained high-quality teachers who could also contribute to other schools through their applied research on best practices (teachers as researchers). Among these major alternative schools, Roong Aroon in Thonburi is one of the best known for both its high-quality and innovative/stimulating student-centered learning environment. Visitors often say that they feel like they are at a “resort” (see Figs. 26.1 and 26.2).

26.3.6 Examples of Alternative Higher Education: *The Arsomsilp Institute of the Arts*

The Roong Aroon School Foundation started the higher education institution named Arsomsilp Institute of the Arts, a not-for-profit organization in 2007, beginning with the holistic education in a master’s degree program of study, to train teachers to have special skills to make their classes more learning than teaching oriented (see Figs. 26.3 and 26.4). At present, this Institute has added five more academic



Fig. 26.1 “Green” Roong Aroon School



Fig. 26.2 Students at Roong Aroon School and students from Montana, USA, join in Western dancing during America Youth Leadership Program Thailand (AYPA Thailand)



Fig. 26.3 Entrance to the Arsomsilp Institute of the Arts (photo courtesy of Ajarn Prapapat Niyom)



Fig. 26.4 Students assembled on the campus of the Arsomsilp Institute of the Arts

programs of study, (1) a Bachelors and (2) a Master Degree's Program in Architecture for Community and Environmental Development, (3) a Post Graduate Diploma in Holistic Education, (4) a Bachelor's Degree in Early Childhood (Holistic Education), and (5), the most recent, a Bachelor's Degree in Social Entrepreneurship. Actually,

the Institute has been registered officially as a private institute, but because of its totally unique way of teaching and learning system differing from conventional ones, it was appropriately recognized as the first established alternative higher education institute in Thailand. After 8 years now of experimentation, Arsomsilp has developed the design of a creative curriculum *integrating* all tasks: learning, research, social service, and the promotion of national arts and cultures into the work-based units of learning. Through adopting this innovative process, Arsomsilp has had a better chance to work with a large number of communities, both in urban and rural areas. It has positively welcomed unexpected connections, such as that with the Mahawitayalai Pumpanya Tongtin Learning Centers (Universities for Local Wisdom) in every part of the country, offering the free tuition fee program and relying on voluntary teaching. The mutual agreement between these two institutions has been made for the purpose of developing a feeder system for the Social Entrepreneur Program through articulation of the curricula of the two institutions. This will enable the students from the universities for local wisdom who pass the evaluation standards to transfer to further their studies at Arsomsilp and later on graduate from the program in social entrepreneurship. This year, there were 61 students who were enrolled 2 years before, who will be the first graduating class of the Social Entrepreneur Program.

The Arsomsilp Institute of the Arts has had the opportunity to become involved with the alternative schools. During the time frame of the 1999 Education Reform in Thailand, there were diverse special innovations of education and learning styles created and offered for the “demand-oriented learners,” who were able to choose a different standard of education to achieve the better quality of learning outputs and outcomes. In 2008, the Arsomsilp Institute of the Arts arranged an annual academic conference, the Rapee Seminar: A Networking of Thai-Tai Schools (“Tai” means independent). Thirteen schools participated, namely, Tawsi, Moo Ban Dek, International Meta, Roong Aroon, Jittamet, Satayasai, Wanaswangjit, Daroonsihkalai, Banruk Kindergarten, Samasikha Santi Asoke, Siam-Sam-Tri, Plernpattana, and Ban-Oonruk, which were well established and considered to be provocative in promoting learning innovations or unconventional education at that time.

In this seminar, seven key interesting agenda items were raised and discussed among these school leaders and other participants. They were as follows:

1. Who is learning? How does unlimited knowledge have any real meaning for the learners, if they don’t even know themselves?
2. Where does the learning happen? Can individuals keep on learning without school or in out-of-school settings?
3. When is the optimal time for learning? How can the learners learn if they don’t have any interest? Or how can teachers teach something in which they don’t have any interest?
4. How can and do children learn? Do they have opportunity to think and give meaning by themselves? Or do they only swallow all information into their “blank brains,” banking approach to education (Freire 2004)?

5. What do they need to learn? What is knowledge and what is not? What is usable knowledge? Can they differentiate between knowledge and wisdom?
6. Why do we separate subject matter into single, unrelated isolated silos while we need all *integrated* knowledge and skills in solving nearly all problems (Fry 2015b)?
7. Who are the appropriate individuals to evaluate the learning outputs and outcomes of the learners?

Or who will judge what should be learned and what should not for each learner?

In answering the above challenging questions, this certainly encouraged and strengthened the alternative school providers to have more confidence in what they were doing, as well as inspiring other Thai educators to be more oriented to adjust and bring valuable innovations into the conventional schools. Our schools, such as Roong Aroon, Daroon Sikkhalai, Tawsi, and others, became the places where those from conventional schools often come for study visits and/or send their teachers to be trained.

The consequence and impact from the seminar was the stronger and larger networking either among these alternative schools groups or among other alternative education networks or connections. It was the phenomenon of diverse groups closely collaborating, and finally they established the Association of Alternative Education Council in the following year, 2011. This organization has been active in supporting substantial research and related policy proposals, as noted above.

The curriculum at the Arsomsilp Institute was redesigned to be more flexible to respond to the diverse varieties of demand and learning needs from practical learners. This has resulted in more opportunity for those from unconventional schools or institutions to apply to join the formal study program. For example, the Mor Keaw-Alternative Medicine Learning Center has joined the program, as well as has the Kru-Chang (Cholprakan Janrueng) of Moradok Mai, theater-based learning center.

The INEB (International Network of Education for Buddhism) has proposed to start a program of study at Arsomsilp.

It's an inspiring reality that the unconventional demands for learning are virtually everywhere, but the conventional providers are too limited to meet these growing needs. Interestingly the Nobel laureate (2006), Mohamed Yunus (2016), calls for the establishment of "reverse schools" which reflect the ideals of the Thai alternative school movement:

We need to redesign education so that it supports young people to become full human beings and create the world they want to live in. So a reverse school gives them practice building their own ideas for the future, helping their peers do the same, and then stepping back to see how it all fits together.

26.3.7 Corporate Schools and Universities

After recovery from the “Tom Yam Kung crisis,” the economic crisis which occurred in Thailand between 1997 and 2000, the urgent need of human resource development became the major factor of concern for economic development at all levels. The economic growth in various sectors was struggling in order to move ahead at a much faster rate than the National Economic and Social Development Plan. Particularly, the large-scale corporations realized this as a very important and urgent factor critical for their long-term survival. Another fact they were facing, according to the corporate standard quality, was the failure to recruit qualified personnel and work force who had graduated from vocational schools, colleges, or universities in the country. Meanwhile, the expansion of core businesses with global competency was found to be one of the essential solutions. However, the more qualified manpower they needed, the less qualified graduate students they found. Without a doubt, the vital solution to this urgent problem was that they started to invest in in-house human resource development programs or on-the-job training programs to meet their own requirements. That meant whatever the graduating newcomers’ incoming qualities, the corporations needed to invest more capital for their in-house training for human resource development functions.

A decade later, it was found that their efforts were still far behind the pace of business competition, especially at the global level. Some corporations decided to fill this gap by establishing their own vocational schools and followed by colleges and universities of specific areas of study, in order to create self-supplied professionals or work force according to their own standards. Several outstanding examples are now described:

26.3.7.1 Yonok College/The Nation University

In 1988, the Nation Multimedia Group established “Yonok College” in Lampang Province. It was developed to be a university in 2006 and changed its title to “the Nation University” in 2011, according to the need of the professionals in the media business. It is a self-sustained campus with boarding and well-equipped media lab facilities to support an active learning community. Only one learning center was created in Bang Na, near Bangkok metropolis and close to their corporate headquarters. In addition, the outcome-based learning of the well-rounded personality of the graduates manifests in three major capacities: professional journalistic skills, communications skills, and English language skills. The Nation University also aims to achieve competitiveness at the ASEAN community level. Students have a special opportunity to learn with a team of professionals and media materials in a real work situation. Moreover, special activities have been supported to develop the characteristics of the students, such as student leadership training for an alcohol-free campus, English camp and English-speaking day, and moral and ethical practices in daily life. The university offers a grant for tuition fees in many different schemes. After

26 years, the Nation University has succeeded in graduating 5700 undergraduate and 1200 graduate students.

26.3.7.2 Panyapiwat School/University of CP

In 2004–2005, the Panyapiwat School and College of Retail Business and Technology were gradually developed and registered by the CP-All Corporation. The school's approach was the model of a dual partnership system between the school and the workplace to open the opportunity of work-based learning or learning by doing in the real work situation. The CP-All Corporation promoted the tuition fee waiver granted for those who enrolled in the professional retail business program of study. Students were also offered work after their graduation, 100% provided by the corporation. Even during the practicum year, the students receive some salary. The college chooses to use videoconferencing for the mode of subject matter learning during the term and work-based learning during the practicum term. The college has expanded its small learning centers, ten located in the Bangkok metropolitan area and another ten in the provinces in different parts of the country, with the application of school zoning. Moreover, the corporation also offers a study grant to further bachelor and master's degrees in the technology program of Panyapiwat University.

26.3.7.3 Siam Cement Group Model Schools

In the year 2006, the Siam Cement Group established a technical college, "Model School" in Rayong Province, in collaboration with the vocational education office, in order to supply skilled workers to their industries. Two years later, before the expansion of two more colleges in Songkhla and Nakhon Si Thammarat Province in southern Thailand, four colleges joined this program. The concept of "constructionism" was applied to help strengthen the individual potentiality of the technical workers. Working with a coach and supervisor in the first-year program is an important part of the success from the work-based learning mode at the factory site. At the moment, seven colleges are in operation. The key to success is the special capacity of the teachers, as coaches in the industrial site who are able to guide the students to bring about the direct experiences to the theoretical conclusion. The corporation also offers 100 grants yearly of 5000 baht each to facilitate students being able to attend these alternative colleges.

26.3.7.4 The Kamnoetvidya Science Academy and the Vidyasirimedhi Institute of Science and Technology (PTT)

PTT Public Company Limited, the nation's leading energy company, started both a school and a university of science and technology in the year 2013 and 2015 in Rayong Province. The RASA Foundation was established to be a nonprofit organization dedicated to the establishment of "a world leading science high school and research institute of innovations." The Kamnoetvidya Science Academy (KVIS) applies the extra curriculum for advanced science subject matters beyond the basic standard curriculum, while the Vidyasirimedhi Institute of Science and Technology (VISTEC) determines to commence the first world-class research institute of advanced science and technology. Even though both high school and institute are fully supported by the PTT Public Company Limited, they are designed to be autonomous and academically independent. The full grant scheme is available for the selected talented students for their tuition, residency, and food. A limited number of talented math and science students can apply per year. Through this special education system, they are nurtured to become the best scientists and outstanding researchers capable of discovering valuable technology innovations.

26.4 Concluding Reflections

Although the term "alternative education" was introduced in order to differentiate new trends and paradigms of education from the mainstream education system, it is not that simple and easy to categorize this alternative to the conventional education system. The 1999 National Education Act gave the ministry full authority for regulating the fundamental standard-based curriculum to be provided by all education providers throughout the country, no matter how different a school's objectives might be. There is clearly no doubt that the alternative education providers have been struggling with the rigid official bureaucratic system of the regulators. It's rather like a "hide and seek game" between the authorities and the active providers of alternative education.

However, the growing demand for improving the quality of education (see Chap. 19) around the country and the relatively poor status of Thai education among the ASEAN and Asian countries require urgently the practical solutions simultaneously, either from the national policy or at the school level. It is indeed possible that as long as the good practices of alternative education continue to flourish and expand through the solidarity, networking, and collaboration of the diverse providers, this could encourage development of true quality education in the nation as a whole helping to secure Thailand's long-term future.

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Chapter 27

Synthesis, Rethinking Thai Education: Paradoxes, Trends, Challenges, and Opportunities



Gerald W. Fry

Abstract Thailand's unique and special context is described in ways which augurs well for Thailand's educational future. Four major paradoxes are then identified, the major one being that despite Thailand spending a large percentage of its national budget on education, outcomes and results have been disappointing. Key trends (both successful and problematic) are then identified. Key positive ones are the rapid quantitative expansion of education, the massification of higher education, and Thai students being among the most happy in the world and some being among the most talented. Key problematic trends are synthesized in a tetrahedron: (1) quality issues at all levels, (2) serious inequalities and regional disparities, (3) management/leadership problems, and (4) educational finance issues and how funds are spent. Two major tensions related to improving education are then discussed, namely, the competing influence of global/international and local indigenous forces and the complex challenges of determining educational priorities. HRH Princess Maha Chakri Sirindhorn stresses the importance of traditional holistic education. This chapter concludes with the presentation of alternative policy suggestions to rethink and improve Thai education. Among these suggestions are urgent policies to resolve the small school problem, to provide access to quality education for all, to reduce disparities and inequities at all levels of the system, to redesign teacher education, to improve teacher deployment practices, to produce a "new breed of teacher" and attract top talent to this profession, to increase community engagement with schools, to implement a more effective model of decentralization such as ABE, and to enhance effective R&D spending and related STEM education not only for the talented but for all. It is imperative that Thailand improve the quality of its educational system. If it does not, Thailand could be caught in a "middle-income trap" and surpassed by Asian neighbors on the rise such as Vietnam, India, and Myanmar (Burma).

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27.1 Thailand's Special Context

In rethinking Thai education and its future, it is important to note Thailand's special context. There are numerous aspects of it that augur well for both Thailand's educational and economic future.

27.1.1 Buddhist Culture

As noted in Chap. 3, the vast majority of Thais are Buddhist (roughly 93.6%), and this has important implications for Thai education. The psychologist Douglas Burns (1963) argues that Buddhism is the world religion that is most compatible and consistent with modern science and technology. Buddhist epistemology, as articulated by the Lord Buddha in the Kalama Sutra (Khantipalo 1975), was remarkably prescient and progressive, anticipating the thinking of influential educators such as Vygotsky, Dewey, Illich, and Freire. This philosophy of learning and thinking is totally consistent with the progressive student-centered learning philosophy emphasized in the 1999 NEA.

Thailand's Buddhist culture also relates to "happiness" education. The law of dependent origination, central to Buddhist thought, relates directly to the pursuit of happiness now being emphasized by the King of Bhutan and scholars such as Stanford's Nel Noddings (2005) and Emma Seppälä (2016).

27.1.2 Thailand's Culture of Writing

As noted in HRH's introductory chapter, Thailand's writing system was developed by King Ramkhamhaeng the Great in 1283 during the Sukhothai era. Thus, Thailand has had a writing system for centuries which provides the basis for a literate culture and civilization. However, this writing culture was mainly present among noble royal families and in the Buddhist temples. A strong and rich oral culture was the norm in rural village communities, and in contemporary Thailand, there is still an emphasis on this oral tradition.

27.1.3 History of Creativity and Strong Aesthetic Traditions

An examination of Siamese/Thai history and civilization also demonstrates impressive examples of creativity in numerous areas, particularly architecture and arts, textiles, ceramics, and graphic design. The Temple of the Emerald Buddha and the Grand Palace built during the reign of King Rama I is one of the person-made

wonders of the world and a UNESCO World Heritage site. Other examples are the religious monuments of Sukhothai and Ayutthaya, also World Heritage sites. There are also examples of indigenous intellectual creativity in the humanities with the notable poetry of Sunthorn Phu (Prem and Sunthon 1986) and the historical writings of Prince Damrong Rajanubhab (1,980 entries in WorldCat) (Peleggi and Reynolds 2015; Sulak and Damrong 1979).

27.1.4 Thailand's Strategic Location

Thailand just happens to be located in the very center of the dynamic ASEAN region and in the center of Asia between China and India. It is now part of the Chindia economic zone (Engardio 2007). China and India are currently the world's fastest-growing economies. Thailand is also an integral part of China's mega-transportation project to link China with Southeast Asia and a key player in the new AEC era which came into being at the end of 2015.

27.1.5 Thailand's Low-Cost Climate

Costs of doing business in Thailand are much lower than in places such as Singapore, Myanmar (Burma), Hong Kong, Taiwan, Korea, and Japan. This gives Thailand's special advantages in being a tourist, education, international conference/meeting (MICE), and business/education hub. Both Thailand's strategic location and low-cost climate augur well for its economic future, which can provide important resources for human resource development as was the case in the booming 1980s (open society, dynamic economy) (BOI 1992). For several decades, Thailand has been a location for key international organizations like ESCAP, FAO, UNESCO, UNICEF, ILO, SEAMEO, and RIHED which contribute to Thailand's international prominence (see Chap. 11).

27.1.6 Thailand's Cultural and Linguistic Diversity

Though Thailand is not nearly as diverse as Indonesia or Myanmar (Burma), it still has far more cultural and linguistic diversity than many realize (see Chap. 15) with over 70 different languages spoken. This diversity presents formidable educational challenges but also opportunities. Some scholars have written about the diversity advantage (Zachary 2003). Historically, Thailand has benefitted economically from its migrant populations, particularly those from coastal China (Van Roy 2017; Yan 2013). Approximately 14% of the current population is Sino-Thai. Such diversity almost by definition contributes to having a broader, richer pool of ideas and socio-cultural perspectives which can contribute to solving both educational and social problems.

27.1.7 Thailand's Non-colonial Status

Thailand is the only country in Southeast Asia which successfully avoided being colonized primarily through the astute diplomacy of its kings in the nineteenth century. Actually this brings both advantages and disadvantages. As a result of this status, Thai universities, for example, have been highly eclectic drawing upon multiple influences, American, British, and French (see Chap. 9). Not having been colonized, Thailand has been extremely open to external influences and welcoming to outsiders (see Chap. 2). However, Thailand is disadvantaged in terms of English language capabilities. Countries colonized by England or under its influence such as Singapore, Malaysia, Brunei, and Myanmar (Burma) have clearly an English language advantage over Thailand as does the Philippines (former US colony). Unlike countries like Belgium, the Netherlands, and Switzerland in Europe, Thailand has never had a second language tradition. Nearly all curricula have been Thai language based until recent internationalization and bilingual efforts (see Chaps. 6 and 11).

27.2 Major Paradoxes

In the various chapters of this book, numerous paradoxes of Thai education have been identified.

27.2.1 Inadequate “Bang for the Baht”

During the past two decades, Thailand ranks very high in terms of the percent of national budget spent on education (normally about 25% of the national budget). Despite spending so much money on education, results and outcomes have been disappointing, particularly the scores of Thai students in international examinations such as PISA and TIMSS and national examinations like O-NET. Also ONESQA quality assurance assessments have confirmed serious quality problems (see Chaps. 19 and 24).

27.2.2 Presence of Many Outstanding Well-Trained Educators

Dating back to the days of King Chulalongkorn the Great, Thailand has had a long tradition of sending bright students abroad to study at the world's leading universities. Prince Mahidol, the father of the late HM King Bhumibol, studied medicine at Harvard. There is a Thai emic term, *chup dua* (ชุบตัว), to indicate high status associated with training or study abroad. Through special scholarships, the Royal Family

has supported study abroad for decades now. As can be seen in [Appendix II](#) (brief biographies of prominent Thai educators), Thailand has many impressive well-trained educators who have contributed to the development of progressive laws and policies such as the NEA of 1999. Intellectuals and prominent educators such as Dr. Wichit Srisa-an, Dr. Sippanondha Ketudat (OEC 2006), Dr. Rung Kaewdang (Tawan 2002), and Dr. Somwung Pitayanuwat (Wiwat 2013a, b) contributed importantly to the 1999 education reform. However, despite these educators, Thai education has not made the progress expected primarily for four reasons. First, such individuals are not always well utilized and can “get lost” in Thailand’s huge overcentralized bureaucratic polity. Second, flexibility in their assignments may be constrained by bonding arrangements associated with fellowships/scholarships they may have received. Third, though there are many of these well-educated educators, there are simply not enough of them to meet all the diverse needs in the system, particularly in mid-level leadership positions outside Bangkok. Fourth, progressive ideas, such as those embodied in the 1999 NEA, may not be implemented on the ground at the “rice-roots” level.

27.2.3 *Ranking High in Student Happiness*

With his alternative concept of gross national happiness (GNH), the King of Bhutan has inspired much interest in directing attention to human happiness as the most important outcome rather than money or academic achievements. Such an orientation has also been emphasized by the famous British mathematician and Nobel laureate Bertrand Russell (1996) and the influential Austrian psychologist Erich Fromm (1979), Fromm and Funk (2014). There are numerous assessments of human happiness, and the OECD as part of its PISA program is now assessing student happiness in countries around the globe. In the 2012 PISA student happiness rankings, Thailand was number four in the world (OECD 2012; UNESCO 2014). In this volume there are numerous photos showing visual manifestations of this positive outcome. Thai educators and teachers should be rightly proud of this importance accomplishment. What is more important than human happiness? Stanford scholars, Emma Seppälä (2016) and Nel Noddings (2005) both emphasize the important of happiness and well-being. Noddings argues that:

The best homes and schools are happy places. The adults in these happy places recognize that one aims of education (and of life itself) is happiness...Happy children, growing in their understanding of what happiness is, will seize their educational opportunities with delight, and they will contribute to the happiness of others. Clearly, if children are to be happy in schools, their teachers should also be happy. (p. 261)

Both Thailand’s Buddhist culture and caring committed teachers may contribute to this impressive ranking. Persisting low educational quality combined with high student happiness is indeed another paradox of Thai education.

27.2.4 Economic Success Despite Educational Quality Issues

Despite Thailand's persisting educational problems, over the past six decades, Thailand's economy overall has done extremely well and at times has been one of the world's fastest-growing economies (Muscat 2015; Pasuk and Baker 1996; Warr 2005; Yot and Song 2015). Currently among 42 major global economies, Thailand has the world's lowest unemployment rate, 1.0% (*The Economist* 2018). It also has a large booming tourist industry (Oxford Business Group 2016). However, a major theme of this volume is that without a significantly improved educational system, such success may not be sustainable in the future and Thailand is in danger of remaining mired in a "middle-income trap."

27.3 Major Trends and Directions: Successes

Though the press and scholars, both domestic and international, have been highly critical of the poor performance of the Thai educational system (*Bangkok Post* 2006; *Bangkok Post* 2015a, b; Chularat 2015; Hausmann 2015; Krissanapong 2009; Maxwell and Peerasit 2015; Pusawiro 2012; Thailand Future Foundation 2016; Veera and Sriwipa 2016; Warr 2014), there have actually been notable successes in recent decades that deserve mention and that are described in various chapters of this book.

27.3.1 Thais Valuing Education and Respecting Teachers and Children

Though Thailand is technically not a Confucian society, its strong educational culture shares important values similar to those found in Confucian societies and cultures. Thais greatly value education and respect teachers. A special ceremony was held to honor a retiring primary school science teacher, Khun Khru Banleng Apahung, in remote Bueng Kan Province on September 17, 2015 (Rosarin et al. 2015). He was honored much more than a typical outstanding retiring professor at a university in the United States! The third Saturday of January is Teacher's Day in Thailand which honors Thailand's teachers, and on this special day, former students pay their respects to their former teachers. There is also a tradition on universal New Year's Day (January 1) of former students paying respect to their former teachers. In rural settings, becoming a teacher is considered a high status and honored occupation, even though salaries are quite low by international standards, still another paradox.

Also in Thailand there is special respect shown toward children, and the second Saturday of every January is Children's Day (the week before Teacher's Day) to honor children. On buses, adults typically give their seats to children.

Related to valuing education, it is important to note the role of the monarchy in promoting this important value in many ways. Thailand's prestigious Chulalongkorn University is on precious valuable land donated by the Thai royal family. As noted elsewhere in this volume, there are many royal fellowships to support the study abroad of highly talented students. Dr. Rattana Lao, author of Chap. 10 of this volume, received an Ananda Mahidol Fellowship to support her doctoral studies at Columbia University. There is the important tradition in Thailand for all graduates of public universities to receive their diplomas from a member of the royal family (see Chap. 9). The new King Vajiralongkorn personally gives diplomas to the graduates of the Rajabhat Universities and STOU. The late King Bhumibol was known as 'Teacher of the Land' and visited all 878 districts of the kingdom to learn about and understand the conditions of his constituents (Grossman, et al. 2012; Jones 2000; Vasit et al. 2006). The following statement reflected his commitment to education: "He also prioritized having education much more accessible to the poor" (Gambia 2017). His daughter, HRH Maha Chakri Sirindhorn, known as the "academic princess," has shown a similar strong commitment to education and provides support to remote and disadvantaged schools (see Chaps. 1 and 12). On May 25, 2017, she visited Chumchonbansang School in the very remote Seka District of Bueng Kan Province in the northeast. That school is part of her network of disadvantaged schools which she supports (see Fig. 27.1). These activities and commitments of the royal family *signal* the great value attached to education in Thai society (see Spence 2001). The royal support of education may also be a factor contributing to the high happiness ranking of Thai students.



Fig. 27.1 HRH Princess Maha Chakri Sirindhorn visiting the remote Chumchonbansang School in Bueng Kan Province. Khun Khru Dr. Rosarin Apahung shown receiving the Princess (Photo courtesy of Dr. Rosarin Apahung)

27.3.2 Quantitative Expansion and Massification of Education

Back in the 1960s, the vast majority of Thais who were growing up in rural areas (approximately 80% of the population) were completing only early primary education (grades 1–4), and a very small percentage of the age group were going on to secondary education (see Chap. 6). Many of the leading secondary schools were in Bangkok. Prior to the 1960s, there were no universities located outside of Bangkok.

In subsequent decades, there has been a vast expansion of Thai education, and now most Thais are completing at least lower secondary education (compulsory as of 1999). Three regional universities were created in the 1960s expanding access to higher education to the northern, northeastern, and southern parts of the nation. Facilitating access to secondary education was a key change introduced as a result of the 1970s' education reform inspired by the student revolution of 1973 which overturned a military dictatorship and brought a new openness and democracy to Thailand. Two key changes were a new 6-3-3 structure of education and the transfer of primary education from the Ministry of Interior to the Ministry of Education in 1980. This latter important administrative change made possible the creation of "extended primary schools" (also known as "expanding opportunity schools") in which rural primary schools added 3 years of lower secondary, greatly enhancing access to lower secondary education in rural regions of the country. Also from 1983 to 1987, there was a highly successful literacy campaign orchestrated through the dynamic leadership of Kasama Varavan (see Chap. 8, Appendix II). Another key structural change occurred in 1982 when teacher training colleges became Rajabhat Institutes and then when these Institutes in 2004 became comprehensive universities. The creation of two open universities (Ramkhamhaeng in 1971 and STOU in 1978) in the 1970s greatly expanded access to higher education. These developments have contributed to the massification of higher education (see Chap. 9).

Also contributing to such an expansion was the Student Loan Fund initiated in 1993, which also covered secondary education (which is rarely the case in other countries). Then with the 1997 Constitution and mandated 1999 National Education Act, came 9 years of compulsory education and 12 years of free schooling, which was expanded to 15 years in 2009. With the 15 years of free schooling and growing awareness of the importance of the early years of education and related brain research, there has been a great expansion of preschool education in Thailand (see Chap. 5).

27.3.3 Improvement of Physical Infrastructure

Over these same decades, there have been noticeable improvements in the physical infrastructure of Thai education at all levels, but particularly in higher education. The new Assumption International University campus at Bang Na is world-class. Many other Thai universities such as Chulalongkorn University, Mahidol University,

NIDA, Kasetsart University, and Chiang Mai University have impressive campuses.

There are also impressive secondary school campuses such as the Islamic College of Thailand and Roong Aroon Vithaya School in Thonburi and the many demonstration school campuses. Even in remote rural areas, school facilities are much improved compared to the past. However, many of these facilities are still not up to international standards. Particularly in the STEM area, there are significant disparities in how schools are equipped to do effective STEM education. Even though technically all schools should have Internet access, for some schools it is intermittent and not reliable, particularly in some remote areas.

27.3.4 Expansion of Nonformal Education to Serve Those in Remote and/or Rural Areas

Under the dynamic leadership of Dr. Kowitz Varapipatana, the father of Thai adult and nonformal education, a wide range of diverse educational services were provided to those in rural and/or remote areas (Wiwat 2013a, b). The Department of the Non-Formal and Informal Education (DNIE) at the ministry has the reputation as being the part of the ministry most effectively linked to remote and/or rural areas and the most decentralized part of the ministry.

27.3.5 Success As a Publishing Center

Though we are in electronic age with a decline in traditional print publishing, somehow Thailand's book and publishing industry seems to be flourishing. There are many major bookstores in the Bangkok area (certainly over 10), and in 2013 Bangkok was designated as the "book capital of the world" (Fernquist 2013). Each year Bangkok hosts an International Book Festival at the Queen Sirikit Convention Center which goes on for a whole week and is attended by thousands. The idea for these book exhibitions was the vision of M. L. Manich Jumsai. There are also 37 public libraries in the Bangkok Metropolitan Area (BMA). Certainly Bangkok, if not Thailand, is on its way to becoming a genuine reading culture. This success, however, must be qualified, as it is mainly an urban phenomenon. Rural areas, where the oral culture remains pervasive and strong, represent a very different kind of situation, and many rural homes are severely lacking cultural capital (Bourdieu 1986). In fact, this situation represents still another paradox. Thailand is and is not a reading culture. HRH Princess Maha Chakri Sirindhorn is deeply concerned about this issue.

27.3.6 Success in the PISA International Examinations

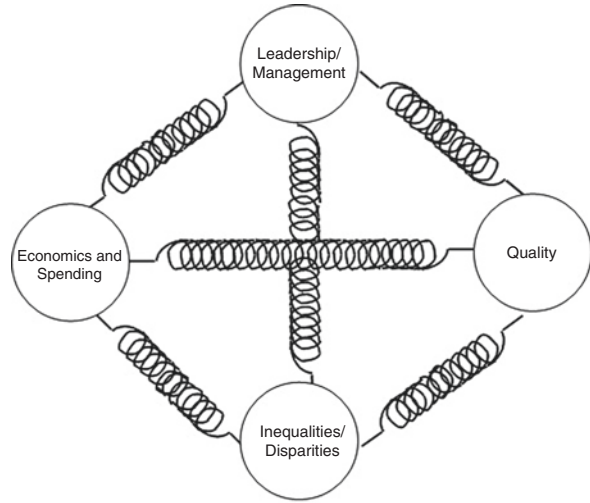
As noted above, Thailand has done well in terms of student happiness as assessed in PISA surveys. In recent years, the media have been highly critical of Thai students' performance in the various PISA cognitive tests (science, reading, mathematics). In these criticisms, the media focus is on comparisons between Thailand and its numerous dynamic Asia-Pacific neighbors such as Singapore, Shanghai, Hong Kong, Korea, and Japan, all of which are high achieving and much wealthier Confucian societies. In Chap. 6, Dr. Amornwich looks carefully at the performance of Thailand in comparison with other developing countries with economies similar to Thailand and finds that actually it does much better than most such countries. For example, Thailand scores slightly higher in both science and mathematics than Costa Rica, a country noted for its emphasis on education, strong democratic traditions, and not having a military. Thailand scores 43 points higher on math and science than Brazil, a major Latin American economy and a so-called economically dynamic BRIC nation. Thai students in the important area of mathematics outperform those in Albania, Colombia, Mexico, Indonesia, and Peru and are comparable to students in Turkey, Uruguay, and Chile (OECD 2016).

27.4 Trends and Directions: Major Problems and Challenges

Despite the many successes and accomplishments just described, many problems and related challenges persist. One major perspective useful in identifying these problems and challenges is that developed by Vavrus and Bartlett (2013) called "vertical case studies." This methodology emphasizes the need to examine both macro-level policies and laws but also to determine what is really happening at the local microlevel in actual schools and classrooms.

Thai educational problems are complexly intertwined. To synthesize these problem areas and to use an interdisciplinary perspective, it may be useful to draw upon a tetrahedron model (from physics), originally suggested by the late Dr. Sippanondha Ketudat (Sippanondha and Fry 1981) (see Fig. 27.2). There are, thus, four key inter-related problem areas, namely, (1) leadership/management issues; (2) economic issues, how educational funds are used and spent; (3) quality issues that permeate the Thai educational system; and (4) persisting and even growing inequalities and disparities.

Fig. 27.2 Tetrahedron synthesizing interrelated major educational problems



27.4.1 *Leadership/Management Problems and Issues*

27.4.1.1 **Transforming Great Ideas into Local Living Realities: Implementation Challenges**

A metaphor is appropriate here: does the “rain actually reach the ground”? Drawing upon the methodology described above developed by Vavrus and Barlett, it is essential to ask whether macro-level progressive laws and policies such as the 1999 NEA are actually being implemented in schools and classrooms (see Chap. 22). Research suggests that the NEA has only been partially implemented (Fry and Bi 2013; Hallinger and Lee 2011; Waraiporn 2005). The same question applies to many other macro policies and laws mandated or inspired by the 1999 NEA.

27.4.1.2 **Frequent Changes in the Political Leadership of the Ministry of Education**

As noted by numerous contributors to this volume, there have been frequent changes in the leadership of the Ministry of Education. In the past 17 years, there have been 20 different ministers of education (see Appendix I). The result is a *lack of continuity in policy*. Also, if the minister represents a different political party, then that individual may not be committed to implementing policies introduced earlier by another political party. This helps explain the implementation problem mentioned

above. Also, new ministers often want to make an immediate impact and may introduce “quick fix”-type policies such as the tablet for every child that are costly and not carefully thought out nor based on evidence. Such quick fixes for large-scale complex problems almost never work.

27.4.1.3 Overcentralized Large Educational Bureaucracy and a Lack of Genuine Decentralization

Despite the progressive 1997 Constitution and 1999 NEA emphasizing the decentralization of education, a huge centralized bureaucracy still remains. There are approximately 30,000 civil servants working at the Ministry of Education. In contrast, China has only about 1000 such civil servants (Pollack 2018). Also, those at the local level desire more authority over both curricular and personnel matters (Fry 2015). Thailand has great regional diversity (see Chap. 2) and educational needs vary accordingly. The new area-based education (ABE) model now being piloted with support from the Thailand Research Fund and the Quality Learning Foundation is an encouraging new development designed to respond to this problem and challenge.

27.4.2 Economic and Spending Issues

27.4.2.1 The Small School Problem

This problem has existed for some time primarily resulting from Thailand’s remarkable “demographic dividend” with its great success in lowering its fertility rate. Current fertility is well below replacement (1.51), the second lowest rate in the ASEAN region. While this demographic dividend contributed in some ways to the economic boom of the 1980s by reducing Thailand’s dependency burden, it now constitutes a major challenge both economically (inadequate labor supplies) and educationally (fewer numbers of students to fill school spaces). Currently Thailand has a huge number of small schools, 19,864, leading to two major problems, high economic inefficiency and low quality. Many such schools do not have enough teachers to cover every class (*khru mai krop chan*) (ครูไม่ครบชั้น) which adversely affects quality.

27.4.2.2 Problems in the Ways Educational Funds Are Allocated and Spent

As indicated earlier, Thailand spends heavily on education (normally about 25% of the national budget) (see Chap. 23). A major issue relates to how such money is spent. Unfortunately, too much is spent on bricks and mortar and maintaining a huge educational bureaucracy which is almost like a “welfare system.” It is also a

system providing many comforts to higher ranking education officials. In the Thai university system, there are abundant drivers and clerks to make life comfortable for administrators and high-level professionals. But these are not truly educational expenditures contributing to quality. Related to the inequality problem discussed below, budgets are driven by student enrollments with little formal targeting of the most disadvantaged schools or areas.

27.4.2.3 The Problem of the Middle-Income Trap

Without substantial increases in productivity and/or moving up the economic ladder in terms of producing products and services with more value added, Thailand will remain economically stagnant, unable to escape the so-called middle-income trap (Warr 2014).

27.4.3 The Quality Problem

27.4.3.1 Poor National and International Performance

The quality problem is serious and goes well beyond just the small schools, primarily in remote rural areas, particularly the northeast. Throughout the Thai educational system, there are quality issues reflected in both low national and international test scores (Mounier and Phasina 2010) (see Chap. 19). Few vocational schools (10%) meet ONESQA quality standards of being “very good.” Thirty percent of OBEC schools fail to meet ONESQA’s basic standards. An important factor contributing to the quality problem is that many teachers are assigned to teach subjects for which they were not trained (see Chap. 18). Thai universities also do not fare at all well in international rankings. Thai students generally perform poorly in English proficiency, a critical skill needed in the AEC era. In recent English skill rankings (based on actual tests, not attitudes), Thailand is the third worst in Asia and 62/70 countries ranked (Frederickson 2015).

27.4.3.2 The Best Students Are Not Being Attracted to the Teaching Field

Countries such as Korea and Finland (Niemi et al. 2012; Ripley 2013) have done extremely well in attracting their top students to the teaching field. Interestingly these two countries rank high in innovation, and in 2016 Korea was the world’s most innovative economy (Jamrisko and Lu 2017). While Chulalongkorn University’s Faculty of Education has demonstrated improvement in this area in recent years, this remains a major problem area. OECD as part of their PISA process surveyed

15-year-olds around the world about their desire to become teachers. Thailand ranked about in the middle (around 5%) of their young people who desired to become teachers. Alarming related to the future of developing high-quality STEM (see Chap. 17), Thailand ranked near the bottom in terms of students superior in math and science aspiring to be teachers (OECD 2015). It is, thus, imperative that the huge educational bureaucracy be downsized so that more incentives and benefits can be offered to those deciding to become teachers. Personal taxes in early 2017 were being increased for teachers. Instead they should be reduced, especially for those willing to serve in remote areas with skills in critically needed areas such as STEM and English.

27.4.4 The Inequality and Disparity Problem

As indicated in Chaps. 13 and 14, serious educational disparities and inequalities exist. Dilaka in Chap. 13 argues that, at the tertiary level, the inequalities are actually growing significantly. Fry et al. in Chap. 14 document significant and serious regional educational disparities. There have been extensive studies documenting the serious educational inequalities and disparities in Thailand (Dilaka 2013, 2016; Dilaka and Sondergaard 2015; Jirada and Takahashi 2013; Kiatanantha 2013; NESDB 2014). The quality and inequality challenges are directly related. In Thailand, there simply is not equal access to quality education. There are great disparities in such access with the disadvantaged being primarily those who are economically poor and/or in remote rural areas, particularly the northeast and deep south.

27.5 Two Major Tensions Related to Improving Education

27.5.1 Indigenous Versus Global Influences

Never having been a colony of any Western power, Thailand's educational system represents an amalgam of local indigenous traditional and global influences, as noted in one of the early volumes on Thai education by Amnuay and Setti (1973) and the major Japanese study of Thai education (Murata 2007). As Thai education has developed in recent decades, there has been increasing tension between these competing policy influences. With the powerful forces of internationalization (see Chap. 11), regionalism (AEC becoming a reality at the end of 2015), booming tourism (Oxford Business Group 2016), and the need for migrant labor, Thailand, even the remote disadvantaged Isan region (Keyes 2014), has become impressively

cosmopolitan. On the other hand, there is a counter force pushing for education to be more nationalistic fostering pride in being Thai and emphasizing the preservation of fundamental Thai cultural and moral values (a trend increasingly prominent since the military coup of May 2014). In the introductory chapter of this volume, HRH Princess Maha Chakri Sirindhorn stresses the importance of traditional holistic education. As noted in Chap. 3, indigenous Buddhist epistemology is actually extremely progressive and totally consistent with student-centered learning and dual education. Rung and Fry's (2000) case study of the Monkey Training College highlights valuable local pedagogies relevant to education reform (AIT 2000). Alternative education (see Chap. 26) also tends to foster the use of traditional culture and values.

As mentioned in Chap. 21, the reforms associated with the 1999 NEA were criticized by certain local voices as being policies imposed from outside by institutions such as the IMF, World Bank, and Asian Development Bank as conditionalities when Thailand sought external financial assistance to recover from the 1998–1999 economic crisis (see Klees et al. 2012; Steiner-Khamsi 2004).

27.5.2 Determining Educational Priorities

This is an extremely challenging and complex issue. Since so much of the educational budget is tied up with personnel costs, there is limited flexibility for reallocating funds. Also, though Thailand spends, as a percent of its national budget, a large amount on education, there are still budget constraints. Which level of education, preschool, primary, secondary, or higher should be given priority? Within higher education should the priority be to build up the excellence of the nine designated top research universities, or should funds be more broadly allocated to improve also the Rajabhat Universities, many serving remote rural communities and areas outside Bangkok? Based on the findings presented in this volume, priority should be given to (1) improving the quality of education at all levels, (2) reducing educational inequalities and disparities, (3) giving more importance to STEM and vocational education, (4) increasing Thai R&D expenditures to help Thailand escape the “middle-income trap,” and (5) finding ways to spend educational funds more effectively and efficiently (see Chap. 23).

27.6 Opportunities and Final Reflections on Rethinking Thai Education

27.6.1 *Suggested Policy Changes Related to the Financing of Education*

27.6.1.1 **Resolving the Small School Problem and Investing More in STEM and Dual Secondary Education**

As noted in Chap. 13 on educational inequalities and disparities, the small school problem must be resolved. This problem is a major factor explaining Thailand's inefficiency in its current use of educational resources. If the status quo were to persist, this is a huge drag on the educational budget limiting funds available, for example, for quality improvements and critically needed R&D expenditures to improve Thailand's international competitiveness.

In Chap. 13, Dilaka discusses a number of policy options. Given the importance of schools to local communities, closing small schools is not a viable political or cultural option except for extremely small schools (those with less than 20 or 10 students). Thus, the major options are school consolidation, more active use of school clusters, and multigrade teaching. In the interests of decentralization and democracy and in the spirit of the area-based education (ABE) model, local communities should be given authority to choose among such policy options, but the status quo of having huge numbers of inefficient small schools is not acceptable. "One size does not fit all," but change is imperative. School consolidation is certainly an attractive option from an economic perspective, but there are serious related complex transportation issues that must be resolved.

Partially because of the significant expenditures involved in maintaining a huge number of small schools, this leads Thailand to spend necessarily a disproportion amount of funding on personnel and the primary school level to the neglect of secondary education (see Chaps. 5, 6, and 19). Greater funding must be given to strengthening secondary education and its having better balance with more emphasis on both STEM and vocational-technical education with greater use of *dual education*. Such investments are crucial for Thailand's long-term future. Also with much less spending on small schools, then more funding can be devoted to improving middle-size schools (around 5000 of them) (Supakorn, 2015 November 12, Personal interview at the QLF).

27.6.1.2 **The Critical Need for Public Educational Finance Reform**

In Chap. 11, Sirilaksana argues for three types of public finance reform: redirecting spending toward activities in which government participation is most critical, increasing reliance on user and other benefit-related charges to finance such spending, and decentralizing some public responsibilities to those in closer touch with

local needs and conditions (cf. ABE Model). Thus the whole spectrum of measures needs to be considered as an *integrated* package program: increased user charges (at some levels), student loans (better targeted), and more scholarships for the truly needy and/or bonding (which, in effect, is a subtler kind of loan).

The financing of education requires that social benefits and costs be closely aligned. In principle, this would mean a whole package of differential fee structures to reflect social costs and benefits and deregulation. A policy direction toward direct subsidy through vouchers to the student rather than the school may better empower students and parents. This option should be carefully considered and perhaps tried out on a pilot basis to see how it might work in the Thai context.

27.6.1.3 Reducing Disparities and Inequalities

Current budget models which are driven by student numbers must be reformed. This model tends to reinforce existing disparities with larger schools in urban areas or more well-to-do rural areas being advantaged. Instead the *targeting* of Thailand's most disadvantaged schools and areas is imperative. An encouraging new development in this regard is the "ICU" schools project introduced by the new Minister of Education Teerakiat to bring failing schools up to standard (Ketkan 2017a, b). ICU is a medical metaphor introduced by former head of ONESQA, Dr. Somwung Pitaynuwat, to refer to schools in the "intensive care unit." This is a joint project of OBEC and ESAs which has identified 6964 schools (many in the northeast) in need of special target funds to improve quality.

Also, there must be much greater incentives provided to encourage outstanding teachers to serve in remote areas with minimal modern amenities and social opportunities. It is particularly difficult for younger single individuals to be happy in such settings. Their social opportunities will be far greater in larger urban communities.

27.6.1.4 Taxing the Shadow Education Industry

Thailand has a huge and growing for-profit shadow education industry (see Chap. 25). The Ministry's Bureau of Policy and Strategy has recommended a policy to tax this industry. That is highly desirable and funds from this tax should be dedicated to reducing the disparities and inequalities just mentioned. Also this "industry" must be monitored carefully to ensure quality control and that consumers of such education are neither deceived nor exploited.

27.6.1.5 Investing More in Strategic Research and Development

As noted in Chap. 16, for decades Thailand has been underinvesting in R&D expenditures, contributing to its currently being in a middle-income trap. Increased investments in this area are essential to enable Thailand to climb the economic ladder and

to be more competitive in higher added value industries and services. Rich countries perhaps can afford to “invest” in “useless” research (see Argyris 1980; Lindblom and Cohen 1979; Sokal and Bricmont 1998), but Thailand must invest strategically (as Japan and Korea did) to produce research that will contribute to innovation and productivity improvements. To encourage greater R&D, it will be important to introduce appropriate tax incentives. As we enter the fourth industrial revolution (Schwab 2016), creative interdisciplinary research that breaks down traditional disciplinary boundaries will be more important than ever.

There needs to be rethinking about the kinds of research being fostered in Thai universities. Unlike in places such as Japan and the United States, the writing of textbooks in Thailand is viewed in highly positive ways. This takes time away from producing valuable R&D-type research. There is also now increased pressure to turn out research quickly, which may adversely affect quality and value and engagement in rigorous long-term studies. There is also a tendency to produce “rigorous” research that actually has little practical use or value (see Argyris 1980).

27.6.1.6 Finding Additional Funding to Enhance the Quality and Equity of Thailand’s Educational System

The prominent US economist and Nobel laureate Paul Krugman notes that the future of any nation is primarily determined by the productivity of its people (Krugman 1996). Thus, it is imperative that Thailand enhance the quality and equity of its educational and human resource development system. In addition to gaining additional funding through taxing Thailand’s large shadow industry, Thailand can generate further resources in support of education through potential *wealth taxes* along the lines of those in France, South Korea, and Japan (Pasuk and Baker 2016) and through significantly decreasing the size of its overcentralized bloated military and civilian bureaucracies. Costa Rica, a nation noted for its emphasis on education and environmental preservation, gets by with no military at all and is a nation that honors its cultural and educational heroes.

27.6.2 Suggested Policy Changes Related to Management and Policy

27.6.2.1 Reducing the Size of the Overcentralized Educational Bureaucracy

Another financial drain on the system is the huge educational bureaucracy. Many of these individuals are not in the classroom or have never been in the classroom, and the Ministry of Education in Bangkok is a huge centralized complex. With a smaller and tighter educational workforce, salaries and benefits could be improved to help attract the top people to the teaching profession at all levels.

Given this centralized system, teachers are rarely if ever consulted or involved in educational policy decisions. In terms of having strict and smooth adherence to bureaucratic rules, regulations, and policies, the centralized system certainly has advantages. However, many of those actually working at the “rice-roots” level really knowing diverse educational needs and problems find such a system frustrating. Without genuinely listening to the voices of those actually in the classroom carrying out education, policies may be flawed and/or unjust.

27.6.2.2 Genuinely Decentralizing the Educational System through Area-Based Education (ABE)

Currently this approach is being piloted in 14 provinces. The pilots in four provinces are being managed by the Thailand Research Fund (TRF), and those in ten provinces are being handled by the Quality Learning Foundation (QLF). The former emphasize R&D, while the latter stress development and empowerment.

These projects have confirmed the importance of differing contexts and how these provinces can effectively implement their own plans. Integral to the TRF pilots is the Local Learning Enrichment Network (LLEN) (Chuachan 2012a, b). This network demonstrated the efficiency of teacher training through local management by pooling resources rather than this function being managed by the central MOE. It also confirmed that local universities (14 participated in the project) had the capability and potential to lead the network management and mobilize local resources for educational development (Chuachan and Aroonsi 2013). As noted in Chap. 4, a number of provinces have demonstrated impressive commitments and innovations in moving to improve quality and reduce disparities.

Local communities must be granted greater authority in budget, personnel, curricular, and assessment matters. In terms of curriculum, “one size clearly does not fit all.” The current curriculum is much too rigid and often does not respond to differential local needs (Fry 2015). The 1999 NEA emphasized that 30% of the curriculum should be locally determined, but that for the most part has not happened. Different regions have different educational needs. This is particularly true in the AEC era. Those in areas in the northeast such as Mukdahan, close to Vietnam and its seaports, need more opportunities to study Vietnamese. With many tourists from China now visiting the Chiang Mai region, Chinese is a highly relevant language there. Bueng Kan Province in remote Isan now has a major rubber industry. So training related to this industry is relevant there.

Like virtually every technology, it must be recognized that decentralization is a two-edged sword. Most contributors to this volume are strong advocates supporting this strategy. However, Mounier and Phasina in Chap. 19 show skepticism about an emphasis on decentralization and localism. They argue that there are excessive costs associated with this initiative to ensure that local administrators have adequate skills to assume much greater responsibilities. Also increased educational corruption can result. Other local critics stress that this policy is being “imposed” on Thailand by

institutions of the global neoliberal regime such as the World Bank, Asian Development Bank, and IMF (see Klees et al. 2012; Steiner-Khamsi 2004).

On March 21, 2016, the government using Article 44 announced a new decentralization policy shifting the focus to the provincial level, with 77 provincial education committees (PEC) being appointed, thus putting into place a new local administrative structure. The emphasis is on coordination and collaboration at the provincial level among all the various education and human resource development providers, not only the offices of the MOE. The new approach seems to reflect the area-based education (ABE) approach being promoted by the Thailand Research Fund and the Quality Learning Foundation (Chuachan and Aroonsi 2013). Prior to this, based on the NEA of 1999, the key local office was the Educational Service Area (ESA). For very small provinces such as Bueng Kan in the remote northeast, this does not represent a significant change in terms of coordination tasks since there is only one ESA in Bueng Kan overseeing the majority of schools in the area. There are a total of 14 small provinces such as Bueng Kan.

But for large provinces such as Korat and Chiang Mai with five to seven ESAs working independently in the area, this represents a major change and challenge. In such large areas, will the provincial education officer and PEC be able to understand well local needs and realities? Under such a system, will local educators have a voice? In reality, the effectiveness of this new approach to decentralization will depend heavily on the quality, integrity, transparency, and the creativity of educational leadership at the provincial level and the extent to which the national government is committed to devolving power to the provinces. For some provinces it may be *recentralization* at the provincial level, while for others the result could be more dynamic and effective genuine decentralization. In terms of corruption and patronage, with the current 225 Educational Service Areas, the span of control and accountability is huge. Thus, the new system emphasizing the province as the focus of decentralization may be more efficient and manageable.

One particular appealing aspect of this new provincial approach to decentralization is that in the Thai context provinces, unlike “artificially” constructed ESAs, have deeply rooted social and cultural meaning. Khon Supanburi, Khon Chanthaburi, Khon Chiang Mai, Khon Mahasarakham, etc. (people of those respective provinces) feel pride in being part of a province with a distinctive history and culture. Thus, provinces could potentially identify special intertwined educational and economic niches to exploit their comparative advantages. Chiang Rai province in the far north, for example, is a gateway to Myanmar (Burma), especially the Tai-oriented Shan State, Laos, and Yunnan, southern China. Mukdahan in the Northeast is a gateway to Central Laos and the Vietnam port of Vinh. Such local pride could be a key success factor in this endeavor aiming to decentralize and diversify education provision to suit the distinctive needs and potential of each province in Thailand.

27.6.2.3 Improving Coordination and Cooperation Among Educational Providers

Currently there are a huge number of actors and stakeholders involved in providing Thai education involving multiple ministries. Unfortunately, coordination and cooperation among them is often inadequate or nonexistent. This is true in many areas such as training, curriculum, and statistics. Public selective universities, Rajabhat universities, and private universities are all involved, for example, in preparing teachers. But without careful coordination among them, inadequate or excessive numbers of teachers may be prepared. Also there needs to be better coordination among local ESAs to serve better local educational needs. The new decentralization policy just described is aimed to foster greater cooperation among all educational actors and stakeholders at the provincial level, in line with the area-based education (ABE) approach (see Chuachan and Aroonsi 2013).

27.6.2.4 Fostering Quality-Applied Research Related to Rethinking Education

Policies related to educational change and reform need to be evidence-based, and, thus, there is a need for more policy-related applied research. The current pilot research on the area-based education (ABE) model being supported by the Thailand Research Fund is exactly the kind of research needed. There are two options in this area. The first option is to use existing mechanisms and institutions such as the Thailand Research Fund, the National Research Council, the Quality Learning Foundation, ONESQA, NIETS, The World Bank-Thailand unit, TDRI, and the OEC to carry out the needed research. The second option, involving more added expense, would be to create a new kind of education-oriented TDRI similar to the KEDI think tank in Korea which might be called the Thailand Educational Policy Research Institute (TEPRI). The Thais should study the KEDI model carefully, since Korea has had such outstanding educational success (Adams and Gottlieb 2018; Ripley 2013). One way to implement this idea would be to transform the OEC into a public organization (to ensure independence but also needed funding) functioning like an educational TDRI. With this kind of status, the new organization could recruit the “best and brightest” researchers to take on complex and challenging educational policy issues. Whichever option is chosen, rigorous applied educational policy research is needed to guide the rethinking of Thai education and to foster critically needed quality improvements across the system (see Chaps. 19 and 20).

Related to the need for evidence-based policy research is also the issue of statistics and who does what. Currently as noted in Chap. 20, there is much overlap, waste, and resulting inconsistencies related to the collection of education statistics.

Data can also be manipulated. Without good data, it is impossible to know local realities. The work to develop for Thailand rigorous National Education Accounting (NEA) is to be applauded (Chaiyuth et al. 2013). A single agency in the Thai government should take exclusive responsibility for both educational statistics and national education accounting. In general as a nation, Thailand tends to be statistics-rich and transparent, but there is a lack of coordination among agencies collecting and presenting statistics. Improvements in this area will contribute to both accountability and creative policy formulation. There is also no tradition of data-based school-level decision-making.

27.6.3 Suggested Policy Changes Related to Curriculum and Instruction

27.6.3.1 Improving Educational Quality

With extensive funds freed up from solving the small school problem, substantial funds should be available for quality improvements. Again following the ABE model, those in local areas should determine how funds can be best used to improve both the quality and relevance of education. For in-service teacher collaborative training on-site should be emphasized rather than large macro training sessions in distant expensive hotels that often involve top-down training and little opportunities for hands-on experience and often result in little sustainability.

27.6.3.2 Redesigning Teacher Preparation and the Teaching Profession

As noted in Chap. 18, teachers are at the heart of quality education as noted in a major report on the world's best performing school systems: "The quality of an education system cannot exceed the quality of its teachers" (McKinsey & Company 2007). Teacher education must be both rigorous and relevant as stressed by the late Dr. Kowit Varapipatana (2000, 2016). With the wave of increasing numbers of migrants coming to work in Thailand and the AEC having started at the end of 2015, Thais, both teachers and students, need greater levels of intercultural competency to complement "hard skills" in areas like STEM and IT. Thus, intercultural education needs to be added to the teacher education curriculum. Mounier and Phasina (Chap. 19) argue that a "new breed of teacher" is needed. To achieve this important goal, both preservice and in-service training need to be redesigned. Teachers should be trained to be effective *facilitators* of learning, understanding how to promote innovative and life-long learning. Teacher education programs need stronger content on assessment, so that teachers are better qualified to construct reliable and valid tests that are in align with student-centered learning and local curricula development. Also the STEM content of teacher education needs to be improved and strengthened (see Chap. 17).

Finally, it is critically important to reduce the excessive time spent by teachers on non-instructional activities that take them away from their classrooms. Hallinger (Chap. 22) calls for an improved *system-level* human resource management system. As part of a more effective system, Thailand might consider adopting the Japanese system in which teachers rotate every 3–6 years. This allows for much new mutual learning and for the best teachers to be shared across the system. This would help to alleviate the problem of the best teachers concentrating in large urban schools.

Dr. Kowit also urged that teachers' salaries and benefits be improved to attract the best people to the teaching field (cf. Park and Byun 2015). Working conditions and opportunities for advancement also need to be improved. The idea of reducing personal taxes for teachers serving in remote areas should be carefully considered. Currently many Thai teachers, especially in rural areas, have serious personal debt problems. On average teachers are up to three million baht in debt (*Bangkok Post* 2015b; Dumrongkiat 2015). In early 2017, the government announced that it would seek to help teachers consolidate and refinance their loans at lower interest rates.

Finding funds to improve the economic situation of Thai teachers at all levels would be costly and raises the issues of priorities. There is the classic choice for most economies (except Costa Rica and Iceland), of “guns versus butter” or now often phrased as “hard power” versus “soft power.” Thailand currently is the second largest arms purchasing customer of the Ukraine, and according to the Stockholm International Peace Research Institute, Thailand agreed to spend \$241 m on buying 49 T-84 tanks (*Kiev Times* 2017). This type of funding could perhaps be better used for improving educational quality and reducing disparities.

27.6.3.3 Better Allocating Teachers and Devoting More Time to Instructional Activities

There are two major problems in this area. Too many teachers are teaching subject matter for which they are not qualified, resulting in poor quality. Second, a major survey found that Thai teachers are missing 42% of their teaching days because of competing nonteaching activities. This is contributing to much inefficiency in the system. Currently a new government policy has been announced to reduce class time to free up more time for extracurricular activities. This is a step in the wrong direction. Considerable international research has shown that “time on task” has a positive effect on learning outcomes. Some research concludes that engaged learning time is the most important influence on academic achievement (Greenwood et al. 2002; Karweit 1984; Marks 2000; Martinez and Brock 2009; Slavin 2003). We see this dramatically in Korea now and Japan in the past (Cummings 1980). Gladwell (2008) in his influential book *Outliers* also emphasizes time on task as being critically important in achieving success.

Fig. 27.3 Teaching English using the grammar translation method

	Active	Passive (be + V _s)	
Present	V ₁ (s, -)	is/am/are + V _s	often every ..., always
Past	V ₂	was/were + V _s	yesterday, ago, last in 2015 in the past
Present perfect	has/have + V _s	has/had been + V _s	since, for
Future	will + V _{inf}	will be + V _s	tomorrow next in 2020 in the future

27.6.3.4 Reforming the Teaching of Both Thai and Other Languages

O-NET results indicate problems in learning languages, particularly English, but also Thai. The prevalence and popularity of social media can also have adverse effects on students’ writing skills with the common use of language such as “how r u?” There are many ways of teaching languages, but the traditional grammar translation method is still common and tends to be boring and ineffective in producing students with communicative competence (see Fig. 27.3). There are three key factors in learning new languages. First is having the opportunity to use the language. Second is being motivated to learn and spending adequate *time on task* as mentioned in the previous section. Learning another language or one’s own language well requires great effort and energy. Third is basic aptitude. Students must be given exciting opportunities to use language in fun and creative ways without getting bogged down in boring tedious grammar rules. Used creatively, ICT can also greatly enhance language learning. Since Thailand was never colonized and does not have a second language tradition, it must redouble its efforts to improve language learning. The rapid growth and popularity of bilingual immersion schools is an encouraging development (see Chap. 6). Also with the advent of the AEC, Thailand must also diversify its language curricula with more students developing proficiency in other Asian languages such as Chinese, Bahasa Malaysia/Indonesia, Burmese, and Vietnamese. Dr. Rung Kaewdang, noted Thai education reformer, argues that well-educated Thais should become proficient in both a Western and another Asian language.

27.6.3.5 More Actively Utilizing Bilingual Approaches in Culturally Diverse Areas

In terms of regional disparities, areas with large concentrations of students whose mother tongue is not standard Thai, tend to be disadvantaged (see Chaps. 12, 14, and 15). Based on both international and national research, Thailand's Royal Institute has developed a progressive language policy recognizing the need for greater use of mother tongue language in the first years of primary school (see Chap. 15). This is a mechanism for both improving quality and reducing regional disparities.

27.6.3.6 Promoting the Importance of Holistic Education

To conclude Chap. 1 of this volume, HRH Princess Maha Chakri Sirindhorn stresses the importance of traditional holistic education. Dr. Kowit Varapipatana (2000), "the father of Thai adult and nonformal education," in a moving letter to the minister of education, written on his deathbed, expressed his deep concern about the lack of attention to moral and character education. Interestingly in the new volume, *The Fourth Industrial Revolution*, Schwab (2016) similarly calls for a holistic approach in nurturing and applying four genres of intelligence: (1) context (the mind), (2) emotional (the heart), (3) inspired (the soul), and (4) physical (the body). In this new era, creative collaboration and cooperation will be more important than ever. Thai educators and teachers must ensure that Thai students are prepared well for the challenges represented by this new revolution (see Fig. 27.2).

27.6.3.7 Achieving a Better Balance Between Vocational and General Education and the Need for more Dual Education

Related to vocational-technical education, the current government's efforts to achieve better balance between those selecting vocational and general tracks are to be applauded. Effective dual education will certainly make the vocational track more attractive as will providing better access in rural areas to the vocational track. This also provides an opportunity to enhance STEM education in the rural areas.

Dual education needs to be not only emphasized for those doing vocational education, but more generally. Carefully designed internships with appropriate mentoring and coaching can be valuable educational experiences. Darren Walker (2016), the president of the Ford Foundation, stresses the value of internships and the importance of individuals of all social classes having access to them.

27.6.3.8 Aligning Assessment, Pedagogy, and Curriculum and Enhancing the Understanding of Student-Centered Learning

Assessment and testing are powerful forces in the Thai system. There is still too much teaching to the test. Teachers are often discouraged from using innovative genuinely student-centered approaches because this may not improve students' test performance. On February 4, 2017, the day when Thai students were taking their O-NET examinations, the new Minister of Education, Teerakiat, announced that students would in the future have access to past exam papers and answers to test questions. Such a policy may contribute to even more to teaching to the test. There is also the assumption, which is questionable, that these tests are valid measures of what students know and can do (OECD and UNESCO 2016; Finley, 2017 January 24, personal communication). Only when assessment, pedagogy, and curriculum are carefully aligned can genuine reform and change take place (Finley, 2017 February 4, Personal communication). With respect to curriculum, there is still inadequate understanding of what student-centered learning really means. Also there is a critical need to move a more *competency-based curriculum* providing students with critical twenty-first-century skills.

27.6.4 Suggested Policy Changes Related to Educational Assessment and Quality Assurance

27.6.4.1 Assessing Administrators and Teachers Based on Students' Performance and Improved Performance

Too often the focus is on the activities of administrators/teachers and their work portfolios. Instead the focus should be on the improved performance of students. There should be concrete rewards for schools demonstrating improved performance (Vichit et al. 2014).

27.6.4.2 Ensuring that Tests Are As Valid as Possible

If students' performance and learning are to be used as criteria for assessing teachers' performance as recommended by Vichit (2014) and his colleagues at NIDA, then it is imperative that the tests used be as valid as possible. Validity means that the tests must at least measure worthwhile curricular outcomes. It is important to have the right people developing the questions, and outstanding teachers at the local level should be given more voice in test item preparation. Drawing on the wisdom and legacy of Dr. Kowit Varapipatana, tests should ascertain students' ability to *khit pen* (ability to think and problem-solve) (Wiwat 2013a, b). There is far too much cognitive testing for what students don't know. And prominent scholars such as Chomsky (2015) note the dangers in standardized testing.

27.6.5 Suggested Policy Changes Related to Education beyond Government

27.6.5.1 Allocating More Funds to Human Resource Development and Training of those Already in the Labor Force

Currently Thai educational expenditures focus on young students in the educational system, inadequately addressing the human resource development needs of those already in the work force, many of whom are not particularly well-educated (from previous eras). Companies should be given tax benefits for enhancing the training of existing employees and providing more internship opportunities for young students as part of the dual education system now being emphasized to improve vocational-technical education.

27.6.5.2 Encouraging and Supporting Alternative Education: The Importance of “all for Education”

The 1999 NEA stressed the visionary motif of “education for all and all for education.” With respect to the latter theme in Chap. 26, Achan Prapapat has shared many of the benefits accruing from alternative education at all levels. It is important that the Thai government not view alternative education as a competitor but instead support and encourage it as a valuable complement to the educational services offered by the state. Both Thailand’s dynamic private and NGO sectors must be more actively engaged in providing educational services to the Thai population in areas such as dual education (see Chaps. 5 and 6) and community-based education (e.g., PDA and the important work of the Duang Prateep Foundation) (Raluk 2010).

27.7 Final Thoughts

Scholars such as the late Dr. Sippanondha Ketudat (2002), Seri Phongphit (2004), and Dr. Prawase Wasi (1998a, b) have stressed the need for a systems perspective in rethinking education. That was the rationale for Prime Minister Prayut on March 17, 2015, to appoint a “Super Board” to oversee education reform (Prayut 2015). Many of the problems and suggestions presented here are complexly intertwined. Therefore, it is critically important not to introduce change in a piecemeal uncoordinated way. That actually can lead to unanticipated negative outcomes. Instead there must be a carefully orchestrated comprehensive and *integrated* series of changes and reforms.

As noted by Professor Hallinger in Chap. 22, related to leadership for reform, it is critically important to strengthen human resources to enable change and reform to occur. At the recent 7th Thai-US Roundtable on Education (February 26–27, 2016), concern was expressed about human resource shortages in the STEM area. Thailand’s major education reform was enacted 19 years ago, and it takes time to develop the critical human resources essential for quality improvements across a large and diverse system. This is certainly a major challenge facing Thailand as it tries to improve its educational system and both patience and persistence will be required.

Interestingly on March 2, 2016, the economist and former head of WTO, Dr. Supachai Panitchpakdi (himself a former student of Nobel laureate Jan Tinbergen), in a presentation at a seminar, University for the Twenty-First Century at Mahidol University, decried Thai education stressing many of the key paradoxes and problems identified in this volume such as inadequate returns on investments in education, an inefficient and ineffective overcentralized administrative system, serious rural-urban disparities, growing inequalities at the higher education level, grossly inadequate investments in R&D, and lack of proficiencies in both English and important regional languages (Dumrongkiat 2016). However, apparently there was no mention of any of the bright sides of Thai education mentioned at the beginning of this chapter. Similarly, the 2016 report of the Thailand Future Foundation only mentions 12 negative facts about Thai education, such as excessive spending on shadow education (see Chap. 25), unemployed college graduates (see Chap. 9), and regional disparities (see Chap. 14) (Thailand Future Foundation 2016).

Fortunately, many of the changes suggested here as part of rethinking Thai education could be financed by improved efficiencies in the present system through solving the small school problem, reducing the size of the overly centralized bureaucracy, reducing expenditures on nonessential items that are not really education, increasing user fees for those able to pay, and taxing the shadow education industry. For Thailand to achieve its long-term potential as a vibrant dynamic economy/society and AEC leader, it is imperative to rethink education in highly creative ways and then actually implement major reforms and changes. Otherwise, Thailand will be stuck in a quagmire of inefficiency and mediocrity surpassed by competitors on the rise such as Vietnam, India, Sri Lanka, and Myanmar (Burma).

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Appendices

Appendix I: List of Ministers of Education Since 2000

1.	Somsak Prisananantakul	1999–2001
2.	Professor Dr. Kasem Wattanachai	2001–2001
3.	Police Lt. Major Dr. Thaksin Shinawatra	2001–2001
4.	Suwit Khunkitti	2001–2002
5.	Pongpol Adireksarn	2002–2003
6.	Dr. Adisai Bodharamik	2003–2005
7.	Chaturon Chaisang	2005–2006
8.	Professor Dr. Wichit Srisa-an	2006–2008
9.	Somchai Wongsawat	2008–2008
10.	Srimuang Jaroensiri	2008–2008
11.	Jurin Laksanawisit	2008–2010
12.	Chinaworn Bunkiet	2010–2011
13.	Worawat Auapinyakul	2011–2012
14.	Professor Dr. Suchart Radaramwongwech	2012–2012
15.	Pongthep Thepkanchana	2012–2013
16.	Chaturon Chaisang	2013–2014
17.	Ms. Sutsri Wongsaman	2014–2014
18.	Admiral Narong Pipatanasai	2014–2015
19.	General Dapong Ratanasuwan	2015–2016
20.	Dr. Teerakiat Jareonsettasin	2016–

Source: Ministry of Education. www.moe.go.th/moe/th/profile/index.php

Appendix II: Brief Biographies of Prominent Thai Educators¹

Ambhorn (Jayapani) Meesook, Khunying Dr. (1920–) Daughter of Luang Tong and Tamtong Jayapani Archvicharsarn, she was born in Bangkok. Khunying Ambhorn is the first Thai woman to receive a doctorate in comparative education (from Harvard University). She held several senior posts in the Thai Ministry of Education and has contributed professionally in many areas of social development. In 1985, she received an honorary Ph.D. degree in social administration from Thammasat University. In 1992, the UN Food and Agriculture Organization (FAO) awarded her the Certificate of Merit in recognition of her exceptional services to the needy and the underprivileged. She also received several decorations from the late King Bhumibol Adulyadej.

Ammar Siamwalla, Dr. (1939–) Prominent development and agricultural economist and probably the best known Indian-Thai. He received a B.S. in economics from the London School of Economics and then a Ph.D. in economics from Harvard. He returned to Thailand to become an economics professor at Thammasat University and was a protégé of Dr. Puey Ungphakorn. He was there until the 6 October 1976 crisis. He has had extensive overseas experience as a researcher at the Department of Economics, Yale University; the Food Research Institute at Stanford; and the International Food Policy Research in Washington, D.C. From 1990 to 1995, he was president of the Thailand Development Research Institute.

Anuman Rajadhon, Phraya (Yong Sathiankoset) (1888–1969) One of Thailand's greatest writers who also had a distinguished career in government service. He was a self-educated Sino-Thai. His writings under the pen name "Sathira Koses" were widely acclaimed; his interests included history, culture, ethnology, philology, and archaeology. He was a linguist, anthropologist, and ethnographer who authored numerous scholarly publications. He had a strong interest in everyday popular culture. Awarded the honorary degree of doctor of literature by Chulalongkorn University, later in life he was invited to lecture at many Thai universities. He also served in the National Culture Institute, was chairman of the Royal Institute, and president of the Siam Society. Phraya Anuman Rajadhon is an inspiring example of an individual who largely learned on his own throughout his life, reflecting one of the key ideals of the NEA of 1999.

Bhumibol Adulyadej the Great, King (1927–2016) Was king of Thailand (1946–2016) and known as "teacher of the land." A grandson of King Chulalongkorn the Great, he was born in Cambridge, Massachusetts, where his father, Prince Mahidol

¹ The major criterion for inclusion of a biography was that the individual is mentioned prominently in the book. The vast majority of those influential educators profiled meet this primary criterion. Others are included if in the judgment of the editor they are significant and influential Thai educators who have made important contributions to the development of Thai education historically or in contemporary times.

of Songkla (1884–1929), was studying medicine at Harvard. He became king upon the death of Ananda Mahidol, his older brother, in June 1946. He continued his studies in Switzerland and was crowned king in an official ceremony in May 1950.

To advise him in his official duties, the king looked to the Privy Council, and for day-to-day affairs he relied on His Majesty's Private Secretariat and on the Office of the Royal Household. The king did not have authority to issue decrees or to veto actions of the Thai National Assembly. However, he did occasionally have indirect influence since all matters of governmental administration are done in the name of the king. Similarly, all draft laws were submitted to the king as a formality for signing before promulgation. Among his other duties were presiding at state ceremonies and formal functions. He dispatched and received envoys to and from friendly nations. He gave official recognition to all graduates and universities and of military academies. He or a member of his family personally hands degrees to all graduates of public universities.

There is universal appreciation and respect for King Bhumibol. He had a reputation for his concern for the well-being of the kingdom's inhabitants, especially the farmers and their families, victims of natural disasters, poor people, and policemen or soldiers injured while performing their regular duties. King Bhumibol pioneered in contacts with the Thai population in the provinces, and he has demonstrated his concern to improve the lives of the rural and urban poor. Those contacts were facilitated by the royal family's use of official residences in five up-country provinces. He personally visited every district in the kingdom. During that roughly 30 year period, he never left the kingdom.

Among the king's hobbies and skills were his achievements in music. He played the piano and at least five other musical instruments. He composed songs and other musical compositions that are widely played and sung in Thailand. On the 42nd anniversary of the king's coronation, he received the title of King Bhumibol Adulyadej the Great at a ceremony conducted by the prime minister. This honor was bestowed previously only on two previous monarchs of the Chakri Dynasty, namely, King Rama I and King Chulalongkorn (Rama V). A museum in his honor at King Rama IX Park in Bang Na provides examples of his nine major roles: (1) leader, (2) diplomat, (3) agriculturalist, (4) musician, (5) artist, (6) writer and intellectual, (7) sportsman, (8) innovator, and (9) photographer. Related to his role as a philanthropist, the king established a foundation, the Chaipattana Foundation. The king contributed significantly to development thinking by proposing the idea of the sufficiency economy (*sethakit pho phieng*) which is promoted by his foundation.

The king received many international awards including in May 2006, the first and only United Nations Human Development Lifetime Achievement Award. In the same year *TIME* magazine recognized him as an Asian hero for shaping the Asia of our time. In 2009 he received the World Intellectual Property Organisation (WIPO) Global Leader Award "in recognition of his extraordinary commitment to promoting intellectual property and his important contribution to society as a prolific inventor." As an artist he produced more than 1000 works, and as an inventor he had over 20 patents and 19 trademarks. For this reason he is frequently called "The Father of

Thai Innovation.” He received more honorary doctorates than any individual in the world, totaling 136 as of 1997.

On 9 June 2006, the king celebrated his Diamond Jubilee, 60 years on the throne, and being the longest serving monarch in the world and one of the longest in world history. To celebrate this occasion, all the world’s monarchs or their royal representatives convened in Bangkok to celebrate this special occasion (also a world first).

Bidyalankarana, H. R. H. Prince (1876–1945) Prince Bidyalankarana had versatile talents and was an accomplished writer and publisher. He studied at Suankularb Wittayalai School and at Cambridge in England. He served in high-level administrative positions in the Ministry of Public Instruction and also the Ministry of Finance. He accompanied King Rama V on his first visits to Europe. Upon returning from Cambridge, in 1901 he started the magazine, *Lak Wittaya* (Stealing Knowledge) which provided translations of Western literary works and offered Siamese a chance to publish their literary work. This publication was a landmark on the Thai literary scene. The prince was one of the most accomplished writers of his time doing both verse and fiction. Probably his most famous work was *Chotmai Changwang Ram* (Letters of Deputy Ram).

Bradley, Dan Beach, Dr. (1804–1873) Prominent US-American Protestant missionary who was influential in the nineteenth-century Siam during the reigns of King Mongkut and King Chulalongkorn the Great. He established the first Siamese script printing press. He also started the first newspaper published in Bangkok called the *Bangkok Reporter* which had its first issue on 16 January 1865. He also compiled and published a major Siamese-Siamese dictionary. He was noted for his compassion for the poor and sick. He brought Western medicine to Siam and introduced small pox vaccinations. However, he failed to convert the Siamese to Christianity with only two Siamese joining his chapel. His great grandson, William Bradley, later became the representative of the Rockefeller Foundation in Thailand and wrote a major book on Thailand titled *Siam Then: The Foreign Colony in Bangkok before and after Anna*.

Bunchana Attakorn (1910–2004) Prominent Thai technocrat and development economist who had many influential positions in the Thai government. The Sino-Thai Attakorn family was originally from the northeastern province of Mahasarakham, noted for its number of higher educational institutions. Achan Bunchana received a graduate degree in 1957 from Indiana University. He was a key economic advisor to Prime Minister Field Marshall Sarit Thanarat. He also served as Minister of Economic Affairs, Minister of Development, and Secretary-General of the Department of Technical and Economic Cooperation (DTEC) which coordinated and monitored all international aid coming into Thailand and was the first rector of the National Institute of Development Administration (NIDA), a graduate university founded (with assistance from the Ford Foundation and the Midwest University Consortium for International Affairs, MUCIA) in 1966 to promote national development. From 11 December 1967 to 21 March 1969, he served as the Thai Ambassador to the United States, succeeding Sukich Nimmanhaeminda.

He published a number of books about Thai politics and a two-volume memoir about his life as Ambassador to the United States.

His brother, Achan Bunthin, for many years was director general of the important Department of Teacher Training, Ministry of Education. Many of his descendants attained prominent positions in Thai society such as Suthep Attakor, who became Minister of University Affairs. His daughter, Khunying Dr. Charatsri Teepirach, became the first female provincial governor (Nakhon Nayok Province) in Thai history in 1993. Her province was the first in the country to eliminate child prostitution.

Buddhadāsa Bhikkhu (Phra Thepwisutthimethi) (1906–1993) A widely admired and respected theologian born in the south as Nguam Panitch. The Suan Mokh (Garden of Liberation) Meditation Center near Chaiya in Surat Thani Province of southern Thailand was developed under his leadership. The center grew to 50 or more monks in residence. Buddhadāsa has been a critic of Thai Buddhists who use religion for personal and worldly benefit. For example, he is highly critical of the Thai Buddhist emphasis on “merit making” or preoccupation with the externals of religious rituals and ceremonies in order to better one’s self in the world. Buddhadāsa taught that the foregoing was not only useless, but led one away from genuine religious practice. These criticisms resulted in making him a controversial figure.

Buddhadāsa offered a comprehensive and influential interpretation of Theravada Buddhism for today’s devotees. The originality of his thought system has been seen as stemming from a profound understanding of authentic Buddhist concepts, even generously drawing on other Buddhist schools, such as Mahayana. Buddhadāsa’s teachings have been collected and published in over 200 volumes that include his lectures as well as his written work. Many of his prolific writings have been translated into English, some of the most well-known being *Handbook for Mankind* (1967), *Toward the Truth* (1971), *Heart-wood from the Bo Tree* (1985), and *Mindfulness with Breathing* (1997). Professor Donald Swearer (Swarthmore College and Harvard) translated some of Buddhadāsa’s works; more recently, a Peace Corps volunteer-turned-monk named Santikaro has (re)translated a number of his works. Suan Mokh’s influence is present in Santikaro’s Liberation Park retreat in Norwalk, Wisconsin. On 27 May 2006, Thailand issued four special commemorative stamps to celebrate the centennial of his birth. On 20 October 2006, UNESCO recognized Buddhadāsa as one of the great personalities of the twentieth century.

Boonlua Kunchon Depyasuvarn, M. L. (1911–1982) A government official, author, and professor of Thai and English literature who is generally considered to be the founder of modern Thai literary criticism. M.L. Boonlua was directly descended from King Rama II, often referred to as “the poet king.” M.L. Boonlua was educated in English in Catholic convent schools in Bangkok and Penang, Malaya, from the ages of 4 to 17. She was among the first women to be admitted to Chulalongkorn University in Bangkok and graduated with an M.A. in English and French literature. She also earned an M.A. in education from the University of Minnesota in 1950.

During the course of a successful academic and government career, M.L. Boonlua taught English and Thai language and literature in secondary schools and universities, and in 1968 she was asked to found the Faculty of Fine Arts at the new Silpakorn University site at Nakhon Pathom, 50 kilometers west of Bangkok. Throughout her career, she served in a number of influential positions at the Ministry of Education. During the 1960s and 1970s, she wrote several novels that described the social and political transformation of Thailand following 1932. Only one of M.L. Boonlua's novels (all of which were written under her first name, "Boonlua") has been translated into English, *Thutiyawiset*, which was translated into English and published in 2017 by the Cultural Fund. The novel was inspired by the life of Thanphuying La-iaad Pibulsonggram, wife of the former Thai prime minister. Selections of her fiction in English translation may be found in anthologies by both Herbert P. Phillips and also Susan F. Kepner. M.L. Boonlua was also the author of many essays and several important untranslated books on Thai literature. M.L. Boonlua continues to be revered as a wise and compassionate teacher and scholar of Thai literature whose teaching philosophy and methods were unprecedented and whose legacy of scholarship and service to her nation are legendary (Kepner 2013).

Chah Subaddho (Chao Khun Bodhinyana Thera), Achan or Luang Por or Phra (1918–1992) Buddhist priest noted for being a meditation master in the forest tradition from Ubon in Isan. He was considered to be among Thailand's top if not the leading meditation teacher in Thailand. He was a disciple of the Venerable Achan Mun Bhuridatta. In 1954, Achan Chah established Wat Nong Pah Pong, which expanded to have 250 branches in Thailand and 15 associated monasteries and 10 lay practice centers around the world. Achan Chah played a major role in spreading this Buddhist tradition to places such as Great Britain and Australia. In 1975 he founded the famous Wat Pah Nanachat (International Forest Monastery) in Ubon, which attracted many Westerners, particularly Australians.

Chuachan Chongsatityoo (1946–) Influential Thai educator and researcher. After graduating from leading schools in Thailand such as Triam Udom Preparatory School and Chulalongkorn University and gaining some work experience at the National Education Council (NEC), Dr. Chuachan earned her doctorate from the Katholieke Universiteit Leuven (UK Leuven) in Belgium. After returning to Thailand, she has had a distinguished career as an educational policy maker and senior researcher. While at ONEC she published in diverse areas such as moral education, education for all, and women's issues. From 2000 to 2003, she directed the Office of Education Reform, charged with implementing the National Education Act (NEA) of 1999. Her last major position was as a program coordinator for the Thailand Research Fund (TRF). Her most recent significant publication in 2013 was extensive research on local area-based education (ABE) in collaboration with Aroonsi Jitjang published by TRF. In 2012 she received a major award from the National Research Council of Thailand for the outstanding research of the year for her study, *Local Learning Enrichment Network*. In 2014–2015, she served as an advisor to Deputy Prime Minister Yongyuth Yuthavong.

Chulabhorn, H. R. H. Princess (1957–) Princess Chulabhorn is the third daughter of the late King Bhumibol Adulyadej and Queen Sirikit. She is a scientist, having received her Bachelor of Science degree from Kasetsart University and a doctorate in organic chemistry from Mahidol University. She received the Einstein Gold Medal award in 1986. In 1987, she set up the Chulabhorn Research Institute to promote scientific research in Thailand. That Institute now has status as a university graduate program.

Chulalongkorn the Great, King (Rama V) (1853–1910) King of Siam (reigned 1868–1910) and known as a great reformer. Chulalongkorn was the first son of King Mongkut and became king at age 15. While he was under the regent, Suriyawong, he continued his education and traveled to other parts of Asia where he observed governmental systems. Chulalongkorn's early attempts at reforms were resisted and delayed by older officials and princes. Chulalongkorn aided in the education of his brothers and labored with them in many aspects of administrative affairs. In this way, he assessed their abilities and could assign them to government posts when older ministers and other officials died or retired.

Assisted by his half brothers Princes Devawongse and Damrong and other reformers, he introduced administrative reform of the government in 1892. This created 12 ministries, functionally defined, in which each head was directly responsible to the king. The new highly centralized system replaced an earlier one, the *mahatthai* and the *kalahom*, in which the ministers had not been accountable to the king. The powerful new Ministry of the Interior was assigned to Prince Damrong, who was effective in getting it established. His vision resulted in Thailand's first major education reform to create a modern secular system of education and to provide education in the areas outside Bangkok. As part of this reform, he facilitated the development of schools for the children of both officials and nonofficials.

Starting in 1873, Chulalongkorn initiated gradual measures to free slaves, and in 1905 slavery was formally abolished. The long-standing feudalistic system of *sakdina* was also ended. Early in his reign, he initiated changes from tradition such as wearing European-style clothes, abolished prostration before the king, and introduced using chairs instead of pillows on the floor for seating. Siriraj Hospital was founded in 1887, which 2 years later started a School of Medicine for the training of doctors.

King Chulalongkorn traveled to Europe in 1897 and in 1907, making diplomatic overtures to Denmark, England, Italy, Germany, Russia, and other countries. These trips also influenced his thinking about Thai education reform and the value of Siamese studying abroad.

King Chulalongkorn was said to dislike being king and was known to wander about Bangkok incognito, dressed as a peasant. His many writings include *The Royal Ceremonies of the Twelve Months*, *Far from Home*, and 25 volumes of his personal diary. When he died in 1910, King Chulalongkorn had been king for 42 years. Many credit the emergence of a modern state in Siam to King Chulalongkorn the Great. He is frequently compared to the Meiji Emperor of Japan in his role of modernizing Japan. He and the current King Bhumibol the Great are considered to be the two greatest monarchs of the Chakri Dynasty.

Damrong Lathapipat (1933–1985) Important politician of the Democrat Party during the period 1970–1985. Like many prominent figures in the Democrat Party, he was from the south. He went overseas for graduate study at Cornell University and wrote an M.A. thesis on President Kennedy. Upon his return to Thailand, he became a professor at Thammasat University and then at the National Institute of Development Administration (NIDA). He then left academic life to run for parliament and was elected as an MP numerous times. At the time of his suicide on 29 July 1985, he was deputy head of the Democrat Party and Minister of Science, Technology, and Environment. Given his high rank and seniority in the Democrat Party (and being ahead of Chuan Leekpai in seniority), he likely would have become prime minister had he not committed suicide. There is considerable mystery and controversy still surrounding his death and why, and even whether, he really committed suicide. One explanation for his suicide was the cabinet rejection of his major proposal to increase research and development expenditures significantly, a cause in which he deeply believed, and an important issue raised in this book (see Chap. 22). His son, Dr. Dilaka Lathapipat, an economist of education with the World Bank, is a contributor to this volume. Damrong also worked closely with Dr. Yongyuth Yuthavong, another contributor to this volume.

Damrong Rajanubhab, H. R. H. Prince (1862–1943) A son of King Mongkut and younger brother of King Chulalongkorn, Prince Damrong received a traditional education in the royal court. In 1890, he was an envoy to the royal court of Russia and to other European governments. Then he served as Director of the Department of Education, where he prepared what eventually became the standard texts in elementary education throughout Siam. He also initiated the setting up of Siam's first teacher training school in 1892. Also in that year, he was named Minister of the Interior, a post he held for 23 years. In this position, he pioneered a reorganization of the territorial administration of Thailand into 71 provinces and their respective subunits. As a historian, Prince Damrong collected and compiled the Thai archives of the Bangkok period. He was a leader in establishing the National Museum and the National Library. Due to his many scholarly treatises on history and archaeology, Prince Damrong is considered the “father of Thai history.” He was a prolific scholar with 1773 of his publications currently listed in the World Catalogue. His former Varadis Palace on Lan Luang Road became the Damrong Rajanubhab Museum and Library in his honor which houses over 7000 volumes on Thai history. Also the Thai government declared 1 December to be Damrong Rajanubhab Day. His late son, M.C. Subhadradis Diskul, became a noted Thai educator and art historian. He served as president of Silpakorn University. In 1962 on what would have been his 100th birthday the United Nations Educational, Scientific, and Cultural Organization (UNESCO) honored Prince Damrong posthumously with the World's Most Valuable Person Award, the first ever given to a Thai.

Dhani Nivat Bidyalabh Bridhyakorn, H. R. H. Prince (1885–1974) Popularly known as Prince Dhani, he graduated from Oxford University with honors and served under five kings. Entering the government, Dhani served in the Ministry of

the Interior, was a private secretary to King Vajiravudh, and was the Minister of Education (1926–1932) under King Prajadhipok. In 1904, he founded the Siam Society which he served as president. He held many other high offices and, in 1946, became regent of Thailand, a post he held until 1950. Later he served as president of the Privy Council. He was the author of numerous scholarly publications chiefly on history.

Dharma Pidok, Phra (1938–) A leader in the Thai Buddhist community and abbot of a wat in Nakhon Pathom province. Among the country's foremost Buddhist scholars, Phra Dharma is known for his ability to relate Buddhist teachings to everyday concerns. An honors graduate of Mahachulalongkornrajavidyalaya Buddhist University, he promoted new elements in the university curriculum so that student monks would also be trained in community development, enabling them to assume a broader role in village and urban life. In his book, *Buddhatham*, readers are encouraged to seek wisdom as a way to better understand and cope with problems they encounter. Phra Dharma has asserted that the lack of self-reliance often observed in his countrymen can be traced to overdependence on the patronage system of Thai society. In another context, he explained that it is an error to see the Buddhist concept of karma as a supernatural force that brings fortune or misfortune. Rather karma is a means for understanding the causes of behavior that in turn can help a person to be diligent.

In 1994, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) awarded Phra Dharma its Peace Education Prize. The honorary doctorates that he has received from ten or more universities in Thailand and abroad attest to his interest in and knowledge of many disciplines. His books numbering 160 or more, some of which are in the English language, indicate his wide interests, which include Buddhism, politics, other social sciences, environmental problems, and technology. Additional recognition came to Phra Dharma when he accepted invitations to serve as a visiting lecturer on religion at Harvard University, Swarthmore College, and the University of Pennsylvania.

Galyani Vadhana, H. R. H. Princess (1923–2008) The elder sister of the late King Bhumibol Adulyadej. In 1995 the king gave her the title of "Princess of Narathiwat," the only female in his reign to be honored with this title. Educated in Switzerland, she returned to Thailand to become a French teacher at Thammasat University and was active in promoting the study of French in Thailand. She also engaged in extensive philanthropic activities in a wide range of fields. For example, she was president of the Children's Cardiac Foundation and the Autistic Foundation of Thailand. She had a strong interest in photography, classical music, history, and archaeology. To promote classical music, she established the Fund for the Promotion of Classical Music, of which she was president. She loved writing and at the age of 9 was already publishing articles in the journal *Ruaen Rom*. She published a number of books in diverse fields.

Kamhaeng Palangkul (1916–1976)² Secretary-General of the National Education Council (16 March 1961–30 April 1975), was a highly qualified scholar who devoted himself physically and intellectually for the benefits of the country. He graduated with a bachelor's degree from London University and received his master's and doctoral degree in anatomy from Cambridge University. After the graduation, he was invited to be an associate professor at the Faculty of Medical Science and a board member of Cambridge University. Dr. Kamhaeng was appointed the first Secretary-General of the National Education Council, which was responsible for formulating higher education policy and planning. He wholeheartedly contributed to the development of Thai education, including the development of Chiang Mai University, Khon Kaen University, and Prince of Songkla University. Dr. Kamhaeng was also the key person in developing the university admission system and the university entrance examination in Thailand.

(See http://library.cmu.ac.th/pinmala/doctor_detail.php?id=7&year=2514-2515)

Kasama Varavan Na Ayudhaya, Khunying Dr. (1949–) During the roughly three decades ending in 2009, when she retired from the Thai governmental service, Dr. Kasama held many of the most important and influential leadership positions at Thailand's Ministry of Education. She received both her bachelor's and doctoral degrees from Harvard. She was a protégé of both Dr. Amporn Meesook and Dr. Kowit Varapipatana. Dr. Kowit recruited her to help develop the Department of Non-Formal Education. In that capacity, she played an instrumental role in leading a highly successful national literacy campaign, 1983–1987, which reached over 600,000 target learners and demonstrated her leadership talent (Kasama 1989). Subsequently she went on to become the director general of three major departments in the ministry, namely, the Department of Non-Formal Education, the Department of Curriculum and Instruction, and the Department of General Education (responsible for secondary education). Then she went on to become the Secretary-General of Office of the National Primary Education Commission (ONPEC) and the Secretary-General of the Office of the Basic Education Commission (OBEC). She also attained what is considered the highest civil servant position in the ministry, the Permanent Secretary of State for Education (*Balat Krasuang*). She is highly respected by school administrators and teachers throughout the country for being an honest, caring servant leader. In addition to her successful career at the ministry, she has served on the boards of many important and influential organizations such as Her Royal Highness Princess Maha Chakri Sirindhorn Foundation, the Kenan Institute Asia, and numerous university boards. She has also been active internationally chairing the Executive Board of the UNESCO Institute for Education, presently named as the Institute for Lifelong Learning.

Kasem Wattanachai, Dr. (1941–)² Professor Kasem Wattanachai, M.D., was born in Phichit Province of Thailand. Growing up in a very poor Chinese family, Kasem

²These entries were written by Dr. Waraiporn Sangnapabovorn.

strived hard to seek a better life through education. He graduated in medical science from Chiang Mai University with first-class honors and received the Ananda Mahidol Scholarship to pursue his study at Chicago University. His career started with being a lecturer in Chiang Mai University and climbed to the top post as president of Chiang Mai University. Professor Kasem served as the Permanent Secretary of the Ministry of University Affairs, and in 2001 he was appointed the Minister of Education before being selected to join the Privy Council. He is one of those scholars who supported the enactment of the National Education Act and the operation of the Education Reform Office. Professor Kasem is famous for his honesty, and his lectures are often focused on the transparent administration to achieve the quality of education. Among his noteworthy initiatives was the establishment of the national education test system and community colleges.

Khamman Khonkhai (Sompong Palasoon) (1937–2016) Thai teacher and later high-ranking educational administrator originally from Ubon in the Northeast who translated his experiences as a teacher in a remote disadvantaged area into powerful novels of social realism (see Chiwit 2016). His first novel was *Bantuek khong Khru* (Reports of a Teacher) which did not attract much attention. His second novel, *Khru Bannok* (Rural School Teacher), was both popular and widely acclaimed. In this novel, Khamman “describes the way of life of a poor village folk of a remote area of the northeastern region. He details their speech, their economy, their technology, their festivals and their food. He glories in the environment in which they live, the cycle of seasons, their knowledge and adaptation to it” (Wijeyewardene 1978). In this sense the novel is highly ethnographic. It also addresses the social issues of inequality, corruption, and environmental degradation. This second novel was translated into English (titled *Teachers of Mad Dog Swamp*) and published by a major academic press in Australia. Given its popularity as a novel, it was made into a Thai film titled “*Khru Bannok*” (The Rural School Teacher) starring Piya Trakunlarat and Wasana Sithiwet. This film became a box office hit and was shown in international film festivals. For example, it was shown at a major International Film Festival in Tashkent, Soviet Union, and won praise and an award for its powerful social realism. He also published other works such as *Khru Marisa* (Teacher Marisa) and *Pak Isan* (Voice of the Northeast). Being a ranking civil servant in the Ministry of Education, Achan Sompong used a pen name to preserve his anonymity and his ability to be highly critical of the Thai educational and political systems. Eventually Sompong became the Deputy Secretary-General of the Teacher’s Council. Though he was a full-time civil servant and, thus, does not have a huge body of literary work, Sompong must be considered as a noteworthy novelist because of the quality and relevance of his work, particularly the extremely popular and ethnographically rich novel, *The Teachers of Mad Dog Swamp*.

Khemananta, K. Bhikkhu (Kovit Anekachai) (1938–) Prominent Buddhist intellectual and writer. Kovit (also using the pennames Chapphong and Rung-arun Na Sonthaya) was born in Tha Khura, Sathingphra, Songkhla. According to his own account, Kovit’s life as a child was spent absorbed in the aesthetic beauty of

communal southern Thai village life. As a young boy he was influenced by a doting aunt, who shared a great deal of Buddhist lore and culture with him. His family eventually moved to the town of Songkhla, where he attended school. His interest in art ultimately brought him to Silpakorn University in Bangkok, where he was a charismatic student leader during the heyday of the university. In 1967, he was ordained a Buddhist monk and went to stay with Buddhādāsa Bhikkhu at Suan Mokh, “The Garden of Liberation” in Chaiya. While at Suan Mokh, he had a major role in designing and creating artwork for the Dhamma Theater. The now-famous bust of Avalokitesvara is one of his most impressive creations. At various points in his life, Kovit dreamed of establishing peaceful, spiritual centers (*ashramas*) that tended to be established at the periphery of the formal Thai Sangha organization; and for this reason, in the tumultuous 1970s, Kovit and his innovative ways of conveying the Dhamma were often branded “communist.” In 1982, Kovit left the Buddhist robes behind and returned to lay life, continuing to find new ways to teach the Dhamma. The work of Kovit is difficult to encapsulate: he is an artist, philosopher, poet, and meditation teacher. Much of his painting has been influenced by his early experiences in the South: gradual travel by boat on the inland lake or the Gulf of Siam and time spent watching shadow puppet theater, for example. Furthermore, his meditation practices, as well as his experiments with one-stroke painting, were heavily influenced by Japanese aesthetics and Zen. Kovit played a major role in popularizing the dynamic meditation style of a teacher influential in his later life, Luang Pho Thian. In 2007, Kovit was awarded the title of National Artist by the Fine Arts Department. Grant Olson published an English translation of Kovit’s autobiography and fascinating life history.

Kor Sawatpanich, Dr. (1922–1993) Was born in Roi Et, a province in the north-east of Thailand. He was appointed director general of General Education Department and three times Minister of Education. Dr. Kor graduated from the Faculty of Arts, Chulalongkorn University, and received a M.A. from the University of Oklahoma and Ph.D. in primary education from University of California—Berkeley. His career started with a teaching job in school, and then he climbed the ladder to the top post of the General Education Department. Besides he was once invited to be a legislative parliament member. Well known as a virtuous scholar and educator, Dr. Kor was appointed Minister of Education in three different governments. He was also on the executive board of the UNESCO during 1982–1986. Dr. Kor wrote many textbooks for primary school students and translated the book *World Crisis in Education* by Phillip Coombs into Thai. He also gave lectures at Chulalongkorn University and Srinakharinwirot University. His most influential work while serving at the Ministry of Education was the expansion of educational opportunity for primary school leavers, especially in rural areas, to continue their study in lower secondary level at the same schools.

Kowit Varapipatana, Dr. (1933–2000) Influential Thai educator known as the “father of nonformal education” in Thailand. Through his dynamic, inspiring, and committed leadership, he transformed in 1979 a small modest Division of Adult

Education into the Department of Non-Formal Education. Dr. Kowit was strongly influenced by the thinking of the Brazilian educator, Paulo Freire, and he introduced the important construct of *khit-pen* to be able to think (critically and independently). His protégé, Khunying Dr. Kasama Varavan Na Ayudhaya, carried out a highly successful literacy campaign in the 1980s. For the success of that campaign, the Department was awarded the Human Resources Development Award from the Economic and Social Commission for Asia and the Pacific (United Nations). Dr. Kowit also pushed the idea of community reading centers and the development of practical lifelong learning skills. He is the only Thai educator to be included in the global Alternative Education Hall of Fame.

Mahidol Adulyadej, H. R. H. Prince of Songkla (1892–1929) A son of King Rama V and father of King Rama XIII and King Rama IX. He was a physician educated at Harvard and married a nurse commoner. He is considered to be “the Father of Thai Medicine.” His mother was Queen Sri Savarindra, known as the Queen Grandmother. Mahidol, one of Thailand’s top public research universities, is named after him.

Manich Chumsai, M. L. (1908–2009) Important Thai educator and scholar who contributed to the development of the Thai publishing industry and Thai teacher training. He won a King’s Scholarship to study at Trinity College, Cambridge University. Over 70 years ago he pioneered the publication of Thai-English, Thai-German, and Thai-French dictionaries. In 1940, as a staff member of the Ministry of Education, he established Thailand’s first teacher training college, with a special focus on providing opportunities for women and those from rural areas. Today’s Rajabhat Universities were formerly teacher training colleges. Working with M.L. Pin Malakul, he established Prasarnmit Teachers’ College, which has now become the comprehensive Srinakharinwirot University. He also played an important role in reviving the Royal Institute. In 1950, he joined the United Nations Education, Science, and Culture Organization (UNESCO) to head up their education in developing countries program. In that role he was instrumental in the initiation of publications printed in the Lao script. In 1972, he initiated the Annual Book Fair, which has now become a major event. He was also a scholar who published many books on Thai history and literature and established his own publishing company (Chalermnit). He lived to be a centenarian.

Mechai Viravaidya (1941–) Known as the “condom king” for his popular promotion of condom use, dynamic social entrepreneur who contributed to Thailand’s highly successful family planning and later AIDS education programs. Educated in Australia, he returned to Thailand to work at the National Economic and Social Development Board (NESDB). Through this work and his visits to remote rural areas, he became highly conscious of the complex relations among poverty, large families, and health conditions. He, thus, decided to leave the public service and founded in 1974 the nongovernmental organization (NGO), Population and Community Development Association (PDA), to promote community-based

integrated family planning and improved health care. At the time he initiated PDA, the average Thai woman was having approximately seven children. Now Thailand's fertility rate is a low 1.66, well below replacement level. When an AIDS epidemic hit Thailand in the late 1980s, Mechai was the individual who went public and brought the problem to the attention of the government. In addition to his NGO work, he has been a senator and served in the cabinets of Prime Ministers Prem Tinsulanonda and Anand Panyarachun. Mechai runs a highly successful restaurant in Bangkok called "Cabbages and Condoms" to raise funds for his various causes. Among his many awards, Mechai won the Magsaysay Prize in 1994 and the Gates Award in 2007.

Mongkut, King (H. M. King Rama IV, Phra Bat Somdet Phra Poramenthra Maha Mongkut Phra Chom Klao Chao Yu Hua) (1804–1868) King of Siam (reigned 1851–1868). By birth, Mongkut was a crown prince and ascended the throne of Siam at age 46. He had joined the Buddhist monkhood at age 20 and remained there until he became king. While he was a Buddhist monk, he acquired fluency in English and many Southeast Asian languages. His studies also included Sanskrit, Pali, and several of the sciences, especially astronomy. As a devout Buddhist, he aided the movement toward a stricter observance of the discipline and teachings of the Buddha. In this way, a more rational response to modern science would be possible. Mongkut's own reform teachings were found in his sermons and were also published as tracts.

As king, Mongkut did much to improve the international standing of Siam. He had extensive correspondence with other heads of state, including those of Great Britain, France, the United States, and with the Pope. In the 1855 Bowring Treaty with Great Britain, the name Siam replaced the former title Bangkok Kingdom. Mongkut and his advisors recognized the threat of colonization presented by the British and French and gradually met some of their demands. These included extra-territoriality for the benefit of Europeans in Siam and the removal of barriers to Western trade. A pattern of accommodation was seen as essential in order to maintain the independence of Siam. Aware of the merits of modernization, Mongkut set in motion a number of changes. These included dropping certain ancient customs, establishing new rights for citizens, and publishing an official gazette. The necessity for reform and maintaining national independence were emphasized in the education of his sons. Chulalongkorn, the son who succeeded Mongkut as king, actually put these ideas into practice.

P. A. Payutto (Prayudh Payutto, Phra Brahmaganabhorn) (1938–) One of Thailand's leading Buddhist intellectuals, thinkers, and writers. "Payutto" is his monastic name literally meaning "a person with unrelenting efforts." He also has used other names such as Phra Rajavarani and Phra Thepweithi. He believes strongly in a strict interpretation of the Pali canon, in line with the Theravada tradition. He achieved the highest proficiency rank in Pali studies. He is a prolific Buddhist scholar and his *Buddha Dhamma* is considered a masterpiece of Buddhist writing. He received the UNESCO Prize for Peace Education and donated all the funds

received to establish the Phra Dhampitaka Education for Peace Foundation. He also served as associate dean at the Mahachulalongkornrajavidyalaya Buddhist University. P.A. Payutto has been particularly well known for showing the relevance of Buddhist thought to contemporary social and political issues. His work on Buddhist economics has also been a valuable contribution.

Pasakornwong, Chao Phraya (Porn Bunnag) (1849–1920)² A descendent of a powerful political clan of early Rattanakosin period. He was among the first Thai students who was educated in England. Upon returning to Siam, he helped as an interpreter and negotiator for foreign affairs and served as King Chulalongkorn’s special envoy to England, Germany, and other European nations. Chao Phraya Pasakornwong was appointed the Minister of Agriculture and later the Minister of Education when the Ministry was officially established on 1 April 1892. Chao Phraya Pasakornwong proposed an education plan, which was considered too progressive for that time. However, under his supervision the first national education plan was successfully submitted for a promulgation and implementation. He served as the minister until 1902 when he resigned from the post due to health problems.

Phra Phayom Kalyano (1950–) A dynamic and charismatic Buddhist monk noted for his ability to teach Buddhism in ways easily understood by lay persons and especially younger people such as teenagers. He is a student and follower of Buddhādāsa Bhikkhu. He argued that if you can take movies into the temple, why can’t you take *Dhamma* (teachings of the Buddha) into the movie theater. Cassettes of his Buddhist sermons became extremely popular in the 1980–1990 period. He is abbot of Wat Suan Kaeo in the Bangkok area. He organizes many charitable projects and strongly promotes environmental sustainability and recycling.

Pin Malakul, M. L. (1903–1995) Prominent royalist Thai educator and scholar. A graduate of Oxford, he worked closely with King Rama VI and Prince Dhani. He is considered the “father of teacher training” in Thailand and was instrumental in the founding in 1949 of Prasarnmit Teachers College, Thailand’s first major teaching college and which now has become Srinakharinwirot University. Later he was involved in the early 1960s in planning the creation of Chiang Mai University, Thailand’s first regional university. He served as Minister of Education and Culture under Sarit Thanarat and Thanom Kittikachorn and was three times president of Silpakorn University. For many years, he was also the highest ranking Administrator of the Ministry of Education. As Minister of Education and Culture, he oversaw the revision of texts to show the king’s important role in Thailand. He was also a scholar who published extensively in a wider range of areas. In 1987 he was named National Artist of the Year for his contributions to literature and in 1992 received the ASEAN Award for Literature. In 2003, UNESCO celebrated the centenary of his birth, and the building that houses UNESCO’s Office for the Asia and Pacific Region is named after M.L. Pin.

Prasadej Surendrathibodi, Chao Phraya (M. R. Pia Malakul) (1867–1916)² Chao Phraya Prasadej Surendrathibodi (M.R. Pia Malakul) (1867–1916) was one of the forefathers of modern education in Thailand, at the time when the Kingdom began to negotiate its transformation in the context of spreading European influence in the region. He was among the first Thais to receive overseas education and was entrusted by King Chulalongkorn to be a caretaker for Crown Prince Mahavajiravudh (later to become King Rama VI) while the Crown Prince was studying in England. He was appointed the Thai ambassador to England and Europe during 1897–1899. When he was the ambassador to England, he proposed guidelines for the operation of education in Siam to King Chulalongkorn. The proposal was approved and developed into the Krongkan Sueksa 1898, the first national education plan which was promulgated on 19 June 1898. Under the blessing of King Rama V, M.R. Pia came back from Europe with a plan to open universities in Thailand. He served as the head of the Education Department before he was finally appointed the Minister of Education by King Vajiravudh. In recognition of his great contributions, M.R. Pia was named Chao Phraya Prasadej Surendrathibodi.

Chao Phraya Prasadej Surendrathibodi (M.R. Pia Malakul) was the father of M.L. Pin Malakul, who later also became one of the most famous Ministers of Education. He composed many books including the renowned one, *Sombat khong Phudi* (Character of the Noble Man). He was awarded the UNESCO Prize as the World's Great Personality for education, social, and human sciences on the occasion of the 150th anniversary of his birth in 2017 and the 100th anniversary of his death in 2016.

Prathip Martin Kamolmas, Dr. Reverend Brother (1933–) Known simply as “Brother Martin,” he has played a major role in the development of private higher education in Thailand. He holds two graduate degrees from Stanford and did his doctorate at the Southeast Asia Interdisciplinary Institute School of Organizational Development in the Philippines. From 1978 to 2002, he served as the president of Assumption University and had the vision to create a world-class new campus in the Bang Na area of Bangkok near the second international airport (see Chap. 3, Fig. 3.4). This was the first international university in Thailand and the undergraduate curriculum is in English. He has also served in the National Legislative Assembly. He was one of the founders of the Congress of Parents and Teacher Associations of Thailand. He holds seven honorary doctorates and currently is the President Emeritus of Assumption University. That university has created an extensive archive in his honor which includes his extensive writings on education (<http://library.au.edu/bro-martin/>).

Prateep Ungsongtham Hata (1952–) Known as the “slum angel,” a Thai activist and politician dedicated to helping the urban disadvantaged, especially those in Bangkok’s largest slum, Khlong Toei. Prateep is a Sino-Thai who grew up in the Khlong Toei area and dropped out of school after the fourth grade to work to help her poor family. Slum children, without proper house identification papers, could not attend regular school. *Khru* (teacher) Prateep established a special school to

serve these children. The slum dwellers at Khlong Toei live illegally on land owned by the Port Authority of Thailand (PAT). Later, Prateep received a degree from a Bangkok teacher's college and subsequently went to do graduate studies at Wichita State University in the United States. While abroad, the slum dwellers were threatened with eviction. She gave up her studies to rush home to fight the eviction successfully.

In 1978, Prateep received the prestigious Magsaysay Prize for public service. She used the prize funds to establish the Duang Prateep Foundation to support her slum school at Khlong Toei. In 1980, she was the first Asian to receive the John D. Rockefeller Youth Award for Outstanding Contribution to Mankind. She used the funds from this award to establish the Foundation for Slum Child Care. In 2004, she received the World Children's Prize for the Rights of the Child. The 1997 Constitution of Thailand, the country's most democratic ever, called, for the first time, for popular election of senators. In 2000, Prateep ran successfully and became a Thai senator. She is married to Japanese activist and writer, Tatsuya Hata.

Prawase Wasi, Dr. (1931–) Dr. Prawase is a scholar, physician, scientist, and highly influential public intellectual. Though not a member of any political party, he is considered a leader in political, education, and social reform, and his ideas are carefully listened to. Dr. Prawase is a prolific writer and the author of at least 140 books and articles. He has advocated decentralization of the Thai political power system, social reform to create a system that better serves the many Thais living in poverty, and also harmony between humans and their environment. Dr. Prawase bases his ideas on Buddhist rationality and compassion.

An outstanding student at Siriraj Medical School, Prawase was awarded a King's Personal Scholarship, enabling him to do advanced medical study in England. For his research on thalassemia, he won the Outstanding Scientist Award in 1983. Prawase's recognition as a "model of the dedicated physician whose goal is service" earned him the Ramon Magsaysay Award in 1981. Other awards include the National Outstanding Citizen in 1985, Outstanding Researcher in 1988, and World Health Organization Tobacco and Health Award in 1990.

Prayudh Payutto (1939–) Buddhist monk, author, and scholar. Prayudh's early education was chiefly in Buddhist temple schools in his home province of Suphan Buri and in Bangkok. After becoming a novice (nen), Prayudh completed all nine levels of Pali language study. He graduated from Mahachulalongkornrajavidyalaya Buddhist University in 1962 and then taught at his alma mater from 1962 to 1974. As part of his teaching role, he aided in curriculum improvement and served as an administrator. His publications include a *Dictionary of Buddhism* and *Buddha-Dhamma*. The latter is his masterpiece on Buddhist doctrine and theology.

During his 35 years of his teaching, study, and writing, he has earned five Buddhist honorary titles, each award being higher than the previous one. Since 1982, Prayudh has been awarded honorary doctorates from five major Thai universities.

Pridi Banomyong, Dr. (1900–1983) Political leader, senior statesman. Pridi, the precocious son of a farmer, completed secondary education and then law studies by the age of 19. He studied in France, where he interacted with other Siamese students who later became his political colleagues. He had a prominent role in the group of reformers who overthrew the Siamese absolute monarchy in the Revolution of 1932. Pridi was active in politics from 1932 to 1949. He was a dynamic charismatic leader and held positions in several administrations, including the cabinet posts of finance, interior, and justice. He served briefly as prime minister and was regent for the youthful king of Thailand, Ananda Mahidol (1935–1946).

Pridi was recognized for outstanding public service and was awarded several of the highest Thai orders and decorations. Four nations, France, Great Britain, Sweden, and the United States, also awarded Pridi high honors. As finance minister, he placed the Thai finance and monetary system on a sound basis. He led in the founding of Thammasat University where he was rector for 18 years. During World War II, when Thailand was aiding Japan, Pridi and Seni Pramoj led a Free Thai underground movement that helped in obtaining lenient peace terms with the Allies after the war. Some of his admirers have established the Pridi Banomyong Institute in Bangkok. There is also now the Pridi Banomyong International College at Thammasat University to honor his legacy.

Puey Ungphakorn, Dr. (1916–1999) An economist whose management of financial affairs during a crucial decade left a lasting imprint (see Kroekkiat and Puey 2016). Puey was educated in Thailand and England. Prior to World War II, he was an instructor at Assumption College. During the Japanese Occupation of Thailand, 1941–1944, Puey served as an interpreter and supporter of the Free Thai Movement within Thailand. Resuming his studies with a government scholarship award, Puey completed a doctorate in economics in 1949 at the London School of Economics. Following this Puey served in the Thai Finance Ministry. Later, with colleagues in both the Ministry and the Bank of Thailand (BOT), he made changes in Thailand's financial system that improved stability in the Thai economy and corrected bank regulations so that the banking system was viewed as sound and enjoyed a higher level of customer trust.

After becoming dean of the Faculty of Economics at Thammasat University in 1964, Puey began to focus on poverty and social justice. He arranged for selected graduate student volunteers to live in agricultural villages where they could help their rural countrymen and act as informal teachers. This led to a widened public concern about the plight of the poor but also uncovered numerous injustices committed by local government officials. As a result, Puey became a controversial figure among those in power. In 1970, he was a visiting professor at the Woodrow Wilson School at Princeton.

For a short period, 1975–1976, Puey served as rector of Thammasat University. In 1976, rightist groups were organized, and with the support of the Thai Army, students at Thammasat were brutally attacked causing many deaths and much bloodshed. Those opposed to Puey and his ideas accused him of being a communist,

and for his safety, Puey fled to England with his family. Puey and others in England with similar views formed the Friends of Thai Trust organization in 1977. In succeeding years, he was an important contact and leader in exile concerning abuses of civil rights and censorship of information in Thailand. He died in England in 1999.

Rabi Bahanasakdi of Ratchaburi, H. R. H. Prince (1874–1920) Founder of Thailand's first school of law and known as the "Father of Thai Law." A son of King Chulalongkorn, he was sent to study in England with three half brothers, including Prince Kitiyakara. His older sister was Princess Ajrabarni Rajkanya, a granddaughter of King Rama IV and Queen Debsirindra.

Ramkhamhaeng, King (1237–1247–1298) King of Sukhothai (reigned 1279–1299). 1298 or 1299 at its zenith. King Ramkhamhaeng created a large and powerful kingdom by the end of his reign. He was an outstanding warrior, statesman, scholar, and diplomat. King Ramkhamhaeng's reign was a period of development for the Thai peoples within his domains. From the Mon, whose civilization preceded the Thai in Southeast Asia, he became a believer in Theravada Buddhism. He invited Buddhist monks to come from Ceylon and later made Buddhism the state religion. He initiated the notion of the king as a paternalistic ruler. He placed a bell outside the palace so that any citizen could ring and gain an audience in order to present the king with a grievance. He was known as a just king, close to his people. King Ramkhamhaeng's reign is credited with the creation of the Thai alphabet, adapting it from Mon and Khmer scripts. With significant changes, this is the alphabet used today in Thailand.

Rangsit, Prince of Chai Nat (1885–1951) A son of King Chulalongkorn who is considered to be the father of Thai public health. He was a half brother of Prince Mahidol and close to him. He was sent to Germany to study and while there fell in love with a German girl whom he married. He returned to Siam to establish the Ministry of Public Health. He also served as director general of University Affairs and helped to develop Thai universities and Chulalongkorn University. In 1946 after the passing of King Rama VIII, he was made regent, and in 1947 he became chairman of the Supreme Council of State. When he passed in 1951, he was the last remaining child of King Chulalongkorn. The important highway, Vibhavadi-Rangsit, running north from Bangkok and turning into the Friendship Highway, is named after Prince Rangsit's daughter-in-law. Also the city north of Bangkok which is the location of AIT and the second major Thammasat campus is named after him. A statute of Prince Rangsit can be found in front of the Ministry of Public Health. On 12 November 1985, a special stamp was issued on the centenary of Prince Rangsit's birth.

Rung Kaewdang, Dr. (1944–) Prominent Thai education reformer. Dr. Rung, originally from Yala in the south, was a protégé of Dr. Sippanondha Ketudat. He rose to many important positions in the education and cultural sectors of the Thai government. He was Secretary-General of the Office of the National Culture

Commission of Thailand, director general of the Department of Non-Formal Education, Secretary-General of the Private Education Commission, Deputy Permanent Secretary of the Ministry of Education, and Secretary-General of the Office of the National Education Commission (ONEC, later to be OEC, 1996–2004), Thailand’s major educational planning and policy unit at the time. In the latter role he played a major role in mobilizing support for the education reform reflected in the 1999 National Education Act and subsequent major restructuring of the Thai educational system. He published numerous books on Thai education and education reform. In 2003 he received the award for the best civil servant in terms of honesty and transparency from the National Counter Corruption Commission. Upon retiring from the civil service, he joined the last Thaksin cabinet as Deputy Minister of Education and advised the prime minister on dealing with the volatile political situation in the Muslim south. With regard to the latter issue, in 2005 he published the book, *War and Peace @ Southern Border*. After the coup of September 2006, Dr. Rung left politics to return to his native Yala. There he established a foundation which works toward reconciliation between the Muslim Malay-Thais and Thai Buddhists and to enhance educational and occupational opportunities for those of Muslim background. Originally this organization was called a Peace College, but later it became the Peace Center.

Saisuree Jutikul, Dr. (1934–) Educator, social worker, politician. Dr. Saisuree was educated in Thailand and in the United States. She served as minister (attached to the Office of the Prime Minister) in the cabinet of Prime Minister Anand Panyarachun. She also served in the Thai Senate for 4 years. The daughter of Pornsil and Sudsawat Jutikul, she was born in Bangkok. She received her Ph.D. degree in educational psychology and guidance from Indiana University in 1962. Saisuree has held positions as the first dean of the Education Faculty, Khon Kaen University, 1969–1975 and director of the Long-Term Planning Board for Children’s Development, 1979–1981. She has actively led the fight against human trafficking and has been a strong advocate for improving the lives of children and women. In addition to her professional accomplishments and work for the common good, Dr. Saisuree is an accomplished pianist. She has also received several decorations from the king and honorary doctorates from Khon Kaen University and Whitworth College, Spokane, Washington.

Sansanee Sthirasuta, Mae Chee (1953–) A Theravada Buddhist nun, is the founder and director of the Sathira Dhammasathan Meditation Retreat Center (SDS). She is a student of Buddhādāsa Bhikkhu. Located in the outskirts of the busy city of Bangkok, the meditation center is an aesthetically pleasing Buddhist garden where people visit to gain tranquility, calm, and a sense of community. The center also includes a Buddhist preschool.

As the spiritual leader and educator, Mae Chee Sansanee teaches the application of Buddhist principles to everyday life in order to live free from suffering. Her effort is particularly notable in assisting women, children, and families. Acknowledging

that women generally have much fewer opportunities and options in their lives than men do, she believes that they can reach their full and unique potential by making a difference in people's lives through practicing Buddhist spirituality every day.

Sawika Sikkalai, a new Buddhist university graduate program, exemplifies Mae Chee Sansanee's innovative effort to strengthen Buddhist education at the Sathira Dhammasathan Center. Opened in 2008, it is officially a part of the Mahachulalongkornrajavidyalaya Buddhist University but operates independently from the umbrella institution. Utilizing her leadership and entrepreneurial skills while realistically recognizing constraints and possibilities, Mae Chee Sansanee has become an exceptional leader and social entrepreneur in Thailand and in the *Mae Chee* community.

Saovabha Phongsri, Queen (1863–1919) Saovabha was a daughter of King Mongkut and a princess. As wife of King Chulalongkorn, and queen, she became the mother of Kings Vajiravudh (Rama VI) and Prajadhipok (Rama VII). During her years as queen, she exerted an influence that encouraged countless Thai women from all walks of life to engage in social welfare work, to continue their education, and to study abroad under her sponsorship. Queen Saovabha was a pioneer in bringing modern methods of childbirth to the Thai kingdom. In 1897, she established with her own funds a midwifery school in Thailand, which later became the Siriraj Nursing School. The health center, which she opened in 1919, later became the headquarters of the Thai Red Cross Society. Saovabha was given the title *somdej phra* by King Chulalongkorn. She was also known as Sri Bajrindra.

Silpa Bhirasri (1892–1962) Sculptor and a leading art educator. Born in Italy, Professor Silpa Bhirasri (originally Corrado Feroci) secured an education in Italy and gained recognition there for his work in art, especially in sculpture. He came to Thailand in 1923 at the request of King Vajiravudh. Among his early sculptures are those of King Vajiravudh at the Grand Palace and at the entrance to Lumpini Park in Bangkok. In 1933, Professor Silpa Bhirasri was a leader in the organization of the first Thai school of fine arts, which later was expanded into Silpakorn University. While in the Fine Arts Department, he sculpted many significant monuments and also did sculptures of famous Thais. Among his most famous works are the bas-relief panels at the base of the Democracy Monument, the monument of King Naresuan the Great in Suphan Buri, the monument of King Rama VI in front of Lumpini Park, and the sketch for the outdoor Walking Buddha at Buddha Monthon, Bangkok. His early students included Cham Khaomeechen, Sawang Songmangmee, Sithidet Sanghiran, Angkarn Kalayanapong, and Thawan Duchanee. These artists were among the first to produce art that combined both Western and Thai patterns. Beginning in 1949, annual national exhibitions of Thai art have presented the work of Silpa, his students, and art school graduates. As a result, both Thai art and Thai artists have gained international attention. Silpa was honored in 1992 with his picture on a postage stamp. He was a prolific writer, authoring more than 60 books on art subjects. Some consider him the father of Thai modern art.

Sippanondha Ketudat, Dr. (1931–2006) Prominent Thai education reformer/leader and former Minister of Education and also Minister of Industry with a doctorate in nuclear physics from Harvard. As Minister of Education, he orchestrated moving rural primary education from the Ministry of Interior to the Ministry of Education. This later made possible *rongrian cayai ogat* (expanded opportunity schools), which were primary schools that added lower secondary. This significantly enhanced access to secondary education in rural and remote areas. For many years Dr. Sippanondha was also Secretary-General of the Office of the National Education Commission (ONEC), Thailand's major educational policy and planning body. In that role he played an important role in the education reforms carried out after the student uprising of October 1973. Dr. Sippanondha also served as CEO of the Petroleum Authority of Thailand (PTT), the largest corporation at the time, and head of the governing board of the National Economic and Social Development Board (NESDB) and for many years was on the Board of Trustees of the Asian Institute of Technology.

Subhadradis Diskul, M. C. Prince (1923–2003) Known simply as Prince Subhad, he was Thailand's preeminent art historian and historical archaeologist. He was the son of Prince Damrong Rajanubhab, the father of Thai history and archaeology and King Chulalongkorn's younger brother who played a key role in implementing his modernization program. Prince Subhad was also the direct grandson of King Rama IV (King Mongkut). He received formal training in art history and archaeology in both England and France from leading specialists. After his return to Thailand, he was to become Thailand's first professor of archaeology and for 11 years was dean of the Faculty of Archaeology at Silpakorn University. Like his father, he was a prolific scholar publishing many books on Thai and Southeast Asian art history and archaeology. He was president of Silpakorn University from 1982 to 1986. Subsequently he became director of the Regional Center for Fine Arts and Archeology of the Southeast Asian Ministers of Education Organization (SPAFA) from 1987 to 1992. While a visiting scholar at the University of Oregon in the late 1980s, he discovered at the Chicago Art Institute a precious lintel missing from the Khmer ruins at Phanom Rung in Buri Ram. For his role in returning this cultural treasure to Thailand, he was named Person of the Year by a major Thai magazine. Prince Subhad also played a leadership role in the Siam Society and later became president of the James Thompson Foundation.

Sukich Nimmanhaeminda (1906–1976) A prominent Thai intellectual, diplomat, and politician from a well-known Chiang Mai family. When he passed in 1976, M.L. Pin Malakul stated that Thailand had lost one of the most important figures of his era. His impressive accomplishments in so many areas make him, like M.R. Kukrit Pramoj, a true Thai Renaissance man. He started his career as an academic at Chulalongkorn University and later served as secretary of the university. In the diplomatic arena he served as Thai Ambassador to the United States and also India. As a politician he served twice as a deputy prime minister. He won a seat in parliament representing the Chiang Mai area as a member of the Sahaphum Party. His last political position was as a senator. He was also an accomplished scholar in

many fields. He is the only Thai to be selected as a Royal Scholar in both the humanities/social science (history) and the natural sciences. He also had important roles in the Ministry of Education and served as the first Secretary-General of the Southeast Asian Ministers of Education Organization (SEAMEO). He also followed Prince Wan as president of the Royal Institute. In reflecting on Achan Sukich's many accomplishments, M.L. Pin noted his extremely important role as secretary in raising the status and stature of Chulalongkorn University. Achan Sukich was married to the famous author, Dokmai Sot.

Teerakiat Jareonsettasin, Dr. (1962–) Was appointed as Thailand's Minister of Education in December 2016, after having served for several years as Deputy Minister and also Vice Minister of Education. He holds an MD from Chulalongkorn University and is a member of the Royal College of Psychiatrists, UK. He was appointed to the Super Board for Education and Policy Development in 2015. Among his past professional positions are senior consultant child psychiatrist at CAMHS; Colchester and honorary senior lecturer and consultant in child psychiatry at the Royal Free Hospital, University of London, UK; advisor to the Deputy Minister of Public Health; Deputy Dean of the Faculty of Medicine, Khon Kaen University; director, Centre for Educational Psychology, Foundation of Virtuous Youth, supported by the Crown Property Bureau; joint founder of the Sathya Sai School, a model school for ethical and moral development; staff, Cambridge English Language Assessment and Cambridge International Examinations; and advisor to the International College of Medicine, Thammasat University. His research has focused on education reform, influences of school on child development, and moral intelligence (MQ). Dr. Teerakiat is a highly experienced clinician using cognitive behavioral therapy (CBT) for a wide range of psychological disorders especially OCD and phobia. He has played a major role in disseminating and popularizing CBT among Thai psychiatrists and psychologists. He is the first Thai Beck Supervisor who has provided opportunities for Thai therapists to access high-quality training in Beckian CBT in their own Thai language. He utilizes CBT skills and principles in his work in various areas. He is an inspiring role model as a clinician and teacher for his students (Beck Institute for Cognitive Behavior Therapy 2017).

Vajiravudh, H. M. King. King Rama VI of Siam (1881–1925) The son of King Chulalongkorn, Vajiravudh was educated in Bangkok and in Great Britain at Oxford University and Sandhurst Military Academy. Early in his reign which began in 1910, he organized the Wild Tiger Corps, a nationwide paramilitary movement, to build the following. Vajiravudh decreed that all persons have surnames. He started compulsory education and promoted Western hairstyles and dress among Siamese women. Vajiravudh enjoyed literary pursuits and wrote plays and essays. He popularized his ideas about patriotism, the virtue of hard work, and willingness to die for king and country. He played a major role in the development of Thai nationalism and in the development of scouting in Thailand. He founded Vajiravudh College, a prestigious private school with elegant Thai and Buddhist architecture. Walter Vella wrote the definitive biography of King Vajiravudh in 1978, titled *Chaiyo! King Vajiravudh and the Development of Thai Nationalism*.

Wichit Srisa-an, Dr. (1934–) Prominent Thai educator, university administrator, and politician. As many prominent educators, originally from Chachoengsao in central Thailand, he completed graduate degrees in educational administration at the University of Minnesota. Upon his return to Thailand, he served in many diverse educational management roles. He was principal of the high school of the prestigious Chulalongkorn University Demonstration School. He served as the Secretary-General and then the vice-rector of Chulalongkorn University. For 14 years he was the highest ranking civil servant in the Ministry of University Affairs. In that role he had the reputation of running the National University Entrance Examination efficiently and honestly. He has been the rector of five Thai universities. He provided leadership for the creation of three new Thai universities each of different genre: Sukhothai Thammathirat Open University (STOU), Suranaree University of Technology (SUT), and Walailak University. He was the founding rector of each of these institutions. In 2003 he became the executive vice president of the Chulabhorn Research Institute. Dr. Wichit has also been active in politics. From 1998 to 2000 he was a senator, and from 2003 to 2006 he was an elected MP of the Democrat Party. From 2006 to 2007, he was Minister of Education. In that role he pushed to have more public universities become autonomous to improve their efficiency and quality. Dr. Wichit was also actively involved in implementation of the education reform reflected in the 1999 National Education Act. In terms of international roles, he was also the founding president of the Association of Universities of Asia and the Pacific (AUAP).

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³Note: This section draws upon my previous work, *Historical Dictionary of Thailand* (2013), with permission of the publisher. Also note that any contributor to this volume is necessarily excluded from Appendix II, since their biographies are already included as part of the front matter of the book.

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