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Education
in Malaysia

Developments and Challenges

EDUCATION IN THE ASIA-PACIFIC REGION: ISSUES, CONCERNS AND PROSPECTS

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Foreword

Since the end of the colonial period in the 1950s and 1960s, newly independent countries' governments have seen education as an important component in their attempts to create new nation states, especially where there are conflicting ethnic and linguistic groups and where there has clearly been a legacy of one or more groups having benefitted from the education policies of the colonial power. Malaysia is a very good example of this scenario. Not only is it a multi-ethnic and multi-lingual society, especially when all the indigenous groups that make up East Malaysia are included rather than just the major groups in Peninsular Malaysia, but British colonial policy clearly benefitted urban groups over rural ones and also benefitted the urban Chinese over the Malays whose country it originally was before the British encouraged Tamil Indian and Chinese immigration to work in key parts of the colonial economy, most notably the rubber plantations and the tin mines. These historical, racial and economic aspects are clearly examined in different chapters in the series of essays that make up this excellent, informative and analytical book.

Language policies, however laudable their purposes, are rarely harmonious and are usually contested. Malaysia is no exception to this rule. While there is only one chapter [Chap. 8] which is devoted to language issues per se in Sarawak, nearly every chapter touches on language policies in one way or another. They have influenced the main medium of instruction in schools, and thus the structure of the entire school system. They have also had a bearing on the medium for teaching particular subjects, most notably science and mathematics. Policy here has changed and changed again but not necessarily for pedagogical reasons. If it has been perceived by the ruling Malay political elite that Malay students are falling behind or are disadvantaged by a particular policy then that policy is changed. For any observer of the Malaysian educational scene it has been clear that positive discrimination has played a key role in favouring the *bumiputras* (Malays) over any other group ever since independence in 1957. Positive discrimination for the Malays – which inevitably means negative discrimination towards other ethnic groups – has been used in terms of special funding for particular institutions, such as technical colleges, but it has been used to favour Malays in terms of examination requirements, much to the chagrin of the Chinese. It has also been used to encourage poorer parents to recognise

the importance of education for their children, and in this respect it has proved very successful. Some critics would argue that such positive discrimination policies which favour one ethnic group over others are akin to 'pork barrel' politics as used in the USA to woo voters, and to the extent that the ruling United Malays National Organisation (UMNO) party has dominated Malaysian politics almost since independence then it has been incredibly successful.

Political influence, however, is not simply confined to language policies. In the Malaysian context, as several authors in this volume point out, it reaches into areas of the curriculum, to reforms, or lack of reforms, to the structure of the education system, particularly in the area of the higher education system where too many key appointments are given to political figures, or those with affiliations to the ruling party, rather than to those who have the specific skills needed. The result has been a stagnation rather than real innovation. Several authors express a certain frustration with this situation. Again, however, it must be stressed that Malaysia is not unique in this.

Perhaps one crucial area where real reform rather than political rhetoric is needed is that of the role of the teacher in the classroom. Even if the syllabus or the curriculum is changed, if the teachers are not properly equipped to change their teaching approaches and still continue with a rote system or an instruction approach with little real involvement and participation on the part of the students so that they can really understand the topic being studied rather than simply regurgitating what they have been taught, then there can be few substantial improvements. Unfortunately, this situation has not been helped by a resurgence of a more Islamic influence which is often opposed to inquiry methods of teaching and presses for a more didactic approach. This is a problem that only sensitive debate and discussion as opposed to dogma can resolve. Teachers should also be rewarded on merit not by how long they have been in the teaching profession. Such changes would need a complete change in mind set both by those at the top of the system and by teachers in the classroom. Unless, or until, this happens too many students will finish their education without fulfilling their potential, and Malaysia will continue to fall behind in the international league tables (see Chap. 6).

Another important side effect of political intervention is that the education system remains far too centralised despite promises to introduce greater decentralisation. The merits of centralisation vs. decentralisation, and variations on this topic, have been debated in international forums over the past few decades, and while there is a general feeling that the greater the decentralisation of a system towards local autonomy and accountability the more successful the educational outcomes are likely to be, there is also a great reluctance on the part of the central government, in this case the Federal Government, to cede too much control, especially where there are ethnic divisions or urban/rural divisions which are particularly noticeable between West Malaysia and East Malaysia. This is a debate that will be ongoing for many years to come. The contributions to this volume on this theme are well worth reading because of the issues that the authors raise.

Since the early 1960s, National Economic and Development Plans have been linked with National Education Plans in most developing and post-colonial countries.

The creation of the International Institute for Educational Planning in Paris is a testament to this trend and a recognition that it is not only socialist countries that have needed to integrate economic targets with education targets. As economists began to argue that there were real economic benefits from educating a population to as high a level as possible, governments took this on board and began to move towards universal primary education, then universal secondary education and more recently Education for All (EFA) which also incorporates adult education and training. Malaysia's Education Plans and her Economic Development Plans have steadily become ever more ambitious, with the goal of making Malaysia a high-income economic powerhouse by 2020. This is unlikely to happen because of the economic crisis of the late 1990s and the financial crash of 2007/8, but the focus of travel is clear. The country's achievements in terms of universal primary enrolments and near universal secondary enrolments are impressive, but enrolments are only part of the solution. It is the outcomes that are far more important, and here there are genuine concerns, as several authors in this book point out. Equality of enrolments, whether in terms of gender or rural/urban disparities, might look impressive – and this is what the political classes will point to – but it is the quality of the student outcomes that is far more important. It is here that there are concerns.

In an age of globalisation and ever increasing use of technology, if a country like Malaysia is to achieve what it hopes to, namely to become a key international hub in South East Asia, there needs to be considerable improvement in educational achievement and in the ability to use modern technology. Steps are being taken to address these shortcomings. For example, there have been genuine attempts to improve the technical and vocational aspects of education (Chap. 9) and to expand, and diversify, higher education provision (Chap. 4) both by allowing private enterprises to establish higher education institutions and by diversifying the type of courses available, as well as by allowing international universities to establish outposts in Malaysia in specially designated areas. Unfortunately, progress is being hampered by political interference in different areas such as the management and administrative structures that have been alluded to earlier.

This overview and foreword cannot hope to do justice to the complexities and issues facing the education system in Malaysia. These have been raised and discussed in the following chapters and are well worth reading, for each of the authors, while at times critical of what they perceive to be issues in need of a solution, is deeply committed to seeing the quality and outcomes of the Malaysian education improve so that Malaysia can fulfil its dream of becoming one of the leading countries in the South East Asia region.

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Series Editors' Introduction

This interesting and informative book by Moses Samuel, Meng Yew Tee and Lorraine Pe Symaco, *Education in Malaysia: Developments and Challenges*, 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 this volume by Moses Samuel et al. being the 39th volume to be published to date.

This ten-chapter volume provides a country case study of key aspects of education and schooling in Malaysia. After an overview of the current education landscape in Malaysia, the various contributors to this book examine a wide range of developments and challenges facing education in Malaysia, including race-based policies and practices, the interrelationship between education and politics, the reform of higher education, teachers and teaching, approaches to reengineering the school curriculum, the role of indigenous languages in schools, skills development for employability, and possible future directions for education in Malaysia.

The book is a comprehensive and fascinating case study of the role of education and schools in a transition country as it moved from being a colony of Britain to becoming a fully fledged, independent country. Together the chapters provide a portrait of the historical, racial and economic aspects of what is a complex multi-ethnic and multi-lingual society.

The 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 ageing 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/6969

All volumes in this 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.

The reason why this book series has been devoted exclusively to examining various aspects of education and schooling in the Asia-Pacific region is that this is a challenging region which is renowned for its size, diversity and complexity, whether it be geographical, socio-economic, cultural, political or developmental. Education and schooling in countries throughout the region impact on every aspect of people's lives, including employment, labour 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 seven billion. Countries with the largest populations (China, 1.4 billion; India, 1.3 billion) and the most rapidly growing mega-cities 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 socio-political 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 globalisation and technological innovation, is leading to long-term changes in trade, business and labour markets, to the sociology of populations within (and between) countries. There is a rebalancing of power, centred 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'.

We believe that this book series makes a useful 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 their own book (or editing a book) on any aspect of education and/or schooling that is relevant to the region are enthusiastically encouraged to approach the series editors either directly or through Springer to publish their own volume in the series, since we are always willing to assist prospective authors in shaping their manuscripts in ways that make them suitable for publication in this series.

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Chapter 1
The Educational Landscape of Malaysia

Moses Samuel, Meng Yew Tee, and Lorraine Pe Symaco

Abstract The term 'landscape' typically connotes a broad view of the lay of the land – its topography and changing contours of highlands and lowlands and changing vegetation. Etymologically, the suffix *scape* comes from the Old English word *sceppan* or *scyppan,* meaning shape. Thus, by derivation, the word landscape would refer to the shape of the land, and landscape artists, for instance, would seek to represent a view of the scenery seen and capture it with a 'broad brush'. In contrast to portraits which offer a close-up view, landscapes offer the benefit of a view from afar, thus capturing the big picture. So, metaphorically, Malaysia's educational landscape, likewise, paints a broad picture of the 'topography' of the education scene in the country, covering with a broad brush aspects of its history, the organization of the education system and major emergent themes. The main purpose of the chapter is then to provide the context against which subsequent chapters may be viewed.

1.1 Historical and Socio-economic Background

Malaya achieved her independence from the British in 1957. In 1963, Sabah (known as North Borneo then), Sarawak and Singapore were united with Malaya to form Malaysia. Singapore subsequently separated from Malaysia in 1965. Malaysia has a total population of approximately 30.2 million, of which 91.8% are Malaysian citizens while 8.2% are non-Malaysian citizens. Malaysian citizens consist of different ethnic groups such as the *Bumiputera* (67.4%), Chinese (24.6%), Indians (7.3%) and Others (0.7%) (Malaysia 2011). The *Bumiputera* (translated 'Princes of the Soil') is a Malay word used to describe ethnic Malays and various indigenous groups such as the Bidayuh, Dayak, Iban, Kadazan-dusun, Penan, Senoi and others. Among the *Bumiputera* Malaysians, the Malays are the predominant ethnic group in the Peninsula Malaysia, constituting 63.1% of the population in the Peninsula; the Ibans constitute 30.3% of the total citizens in Sarawak, while Kadazan-dusun make up 24.5% of the population in Sabah (Malaysia 2010). In light of the cosmopolitan character of Malaysian society, race or ethnicity and the cultural politics of race and ethnicity continue to figure prominently in debates on national policy (see

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for instance two chapters in this volume: Chap. 2 on Race-Based Policies and Practices in Malaysia's Education System, and Chap. 3 on Politics and Education). It is noteworthy that the category *Bumiputera* is significant not only for demographic reasons but also for political and socio-cultural reasons. Article 160 of the Malaysian Federal Constitution defines the politico-legal concept of *Bumiputera*, and this definition is used in the country's affirmative policies under the New Economic Policy (NEP) (in the 1970s onwards) and the subsequent New Development Policy (NDP) (after the 1990s).

Given this multi-ethnic population, several languages are spoken in the country, including Bahasa Malaysia (the national language), several indigenous languages (of which Iban and Kadazan are the most widely spoken in Sarawak and Sabah) such as English, Chinese (particularly the Cantonese, Mandarin, Hokkien, Hakka, Hainan and Foochow dialects), Tamil, Telugu, Malayalam, Panjabi and Thai. Of these, Bahasa Malaysia, Mandarin Chinese and Tamil are the media of instruction in schools, with English also used as a medium of instruction for some school subjects, particularly Mathematics and Science (Asmah 2016).

Basically, Malaysia has a 'youthful' population structure. In 2014, the population below the age of 24 was a massive 45.7%. Although the proportion of the population below the age of 15 in 2010 decreased to 27.6%, compared with 33.3% in 2000, the sizeable school-going population is indicative of the significant role that education will be expected to play in the socio-economic development of the country within the decade (Malaysia 2011).

Overall, males slightly outnumber the females. The 2010 population census reveals the male:female ratio to be 108:100 (Malaysia 2007). The literacy data indicate that the adult literacy rate in 2015 (i.e. the percentage of people above the age of 15 who can read and write with understanding a short simple statement about their everyday life) in Malaysia was 98.42%. The adult male literacy rate for the same year was 96.18%, while that for females was 93.21%. By contrast the youth literacy rate (the percentage of persons between the ages of 15 and 24 who can read and write a short statement about their everyday life) was 98.34% for males and 98.5% for females, showing a slightly higher proportion for females than males for the youth population (UNESCO 2015). These figures, concerning the slightly higher literacy rate for female youths compared to their male counterparts in the 15–24 age cohort compared to the over 15 years age cohort, are indicative of the improvements in literacy levels experienced by females in the school-going population which may partly be due to the increases in access to education in the recent decades particularly among girls.

1.2   Past and Present: Overview of Education in Malaysia

Historically, the *Sekolah Pondok* (literally 'hut schools') was the earliest form of schooling available in pre-colonial Malaya. These were *madrasah* or Islamic religious schools and they pre-dated the secular model of schooling that was introduced by the British colonial authorities in the nineteenth century. At the point of

independence in 1957, the country had a variety of systems of education: English-medium schools, which served the function of the colonial government in preparing entrants into the erstwhile colonial administration, and vernacular schools in Malay, Chinese and Tamil as media of instruction to serve the needs of the various communities. A key challenge in post-independence Malaysia involved having to deal with a variety of schooling systems within the country, separated and fragmented not only by medium of instruction but also by curriculum focus.

By the middle of the twentieth century, the population of the country had become more multi-ethnic, multi-lingual and multi-cultural as a result of different waves of largely Chinese and Indian immigration. As such, the project of nation-building and the role of education as a tool of nation-building began to figure in the discourses on education (Samuel et al. 2014). But the project of nation-building was, and continues to be, fraught with tensions and contestations. Thus for instance, when the *Barnes Report*, prepared by the colonial government prior to independence, advocated a common national curriculum using Malay and English as media of instruction, this proposal was challenged by the Chinese population as reflected by the *Fenn Wu Report* articulating a set of recommendations taking into account the perspectives of the Chinese community (see Samuel & Khan (2013) for an analysis of the discursive contestations involved in the two reports; and Loh (1975) for a socio-historical analysis of the streams of education). In light of these contestations and different articulations of what a *national* educational system should be, *The Razak Report* 1956 recommended two parallel systems of education: a *national school system*, using Malay, the national language, as a medium of instruction; and a *national-type school system*, which used either Chinese or Tamil as medium of instruction. The compromise in a sense struck a balance between the need for national coherence while at the same time preserving community aspirations for preserving cultural heritage. Under the proposal, what united both the national schools and the national-type schools was a common national curriculum which happened to be taught in different languages. The proposals in the *Razak Report* 1956 and the subsequent *Rahman Talib Report* 1960, which argued for a national school system, were incorporated into the *Education Act 1961*, a key legislation which continues to be the central legal framework for the education system for the country. Among the other key milestones in the development and evolution of the 'national' education system – as the concept of what constituted 'the national' was fleshed out, contested and legislated – it included the promulgation of the *Rukunegara* as the national ideology in 1970, after the racially charged riots of 1969, which are seen as a watershed event in the country's history; the successive closing down of English-medium schools beginning with grade 1 in 1970 and completely in 1983, thus effectively making Malay the medium of instruction in national schools; and after 1983, Malay became the medium of instruction in all public universities in Malaysia.

In the project of nation-building and forging of a national identity, the role of education was recognized as crucial as was reflected in the successive Malaysia Plans, the 5-year development plans tabled in Parliament, especially in the 1970s, 1980s and 1990s. Bajunid (2008) critiques this 'grand narrative' of the role of education in nation-building and acknowledges some of the hidden tensions and para-

doxes embedded in the project. He poignantly observes that despite the '[official] rhetoric … the subculture of schools [inevitably also] … fostered antagonism (p.19)' between ethnic groups, as the education system was used as a key vehicle in economic re-structuring as part of the NEP and NDP.

With rapid economic development in the 1990s, 2000s and beyond, the discourses of nation-building were also shaped by another competing set of discourses of globalization, economic competitiveness and incipient neo-liberal economic policies (see also the essay by Terrence Gomez in Chap. 10). This was reflected at the macro-level in the country's *Vision 2020,* tabled in 1991 by the then Prime Minister Dr. Mahathir Mohamed, which envisaged that by the year 2020 Malaysia would achieve developed country status. The language of the preamble of *Vision 2020* captures the aspirational spirit of *Vision 2020*: 'Hopefully the Malaysian who is born today and in the years to come will be the last generation of our citizens who will be living in a country that is called "developing". The ultimate objective that we should aim for is a Malaysia that is a fully developed country by the year 2020' (p.1). Still, despite its goal not being achievable within the allotted timeframe, the Vision set in place economic imperatives that transformed the nation socially and economically. Crucially, 'the Vision' itself straddled the competing tensions between the nation-building impetus on the one hand, and the impetus towards economic competitiveness and growth on the other hand. Thus, Challenge 1, which the *Vision 2020* document articulated, involved the development of a united Malaysian nation and a *Bangsa Malaysia* (translated 'Malaysian race'), while Challenge 9, for instance, referred to 'a prosperous society with an economy that is fully competitive, dynamic, robust and resilient'.

In 2012, the Ministry of Education Malaysia carried out a comprehensive review of the education system in Malaysia and produced the *Education Blueprint* which outlines fundamental strategies and initiatives to improve the education system in the country (Malaysia 2012). The Blueprint (2013–2025) is an aspirational document focusing on five 'system aspirations' viz. access, quality, equity, unity and efficiency. The equity and unity aspirations have featured in the Malaysian socioeconomic development agenda since independence, particularly in the post-1970 NEP and NDP policy periods. The aspiration of quality highlights an emerging core challenge in Malaysian education. While the country has made remarkable progress in providing access to education with over 90% of primary school-age students attending school, there remain concerns regarding the quality of education provided (Malaysia 2012). The *Education Blueprint* acknowledges that on measures of student achievement in the Organisation for Economic Co-operation and Development (OECD) Programme for International Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS) assessments, Malaysia falls in the bottom one-third globally. A 2014 World Bank Report notes that the 'underperformance' also appears to be declining over the years.

Among East Asian countries that participated in the 2009 PISA, Malaysia outperformed Indonesia but lagged behind Thailand, which has lower per-student expenditures (Malaysia 2012). The performance of Malaysian students contrasts sharply with expenditure per student, which falls in the middle-income level, indi-

cating that spending on education does not appear to be a key constraint. *The Blueprint* thus raises a fundamental problem endemic in the system, namely the less-than-satisfactory returns to investment on education. This, despite the fact that, in 2015 for instance, more than 20% of the national budget was allocated to the education sector (New Straits Times, 23 October 2015). Hence, understandably, efficiency in resource utilization has been cited as an aspirational goal in the *Education Blueprint*.

1.3 The Structure of the Education System

Today the national education system includes the following levels of education:

- *Pre-primary/Kindergarten Education* for children between the ages of 4 and 6
- *Primary Education from ages 7 to 12* for students in Years 1–6 (equivalent to grades 1–6)
- *Lower Secondary Education from ages 13 to 17* for students from Form 1 to Form 3 (equivalent to grades 7–9)
- *Upper Secondary Education* is for students aged 16–17, which is Form 4 to Form 5 (equivalent to grades 10 and 11). This includes academic secondary education, technical/vocational secondary education and religious secondary education.
- *Post-secondary Education in the Pre-University* from age 18 for 1–2 years – either in Form 6 for 1.5 years or in Matriculation certificate for 1 year
- Higher Education (which includes 4 years of degree programmes at the undergraduate level)

The education system from pre-primary or kindergarten to primary, secondary and post-secondary school is as a whole under the jurisdiction of the Ministry of Education, which is responsible for managing a comprehensive school system, overseeing and regulating the curriculum, controlling national examinations and supervising the development of education in the country. Tertiary education in the country, on the other hand, comes under the Ministry of Higher Education. In terms of enrolment, in 2016, 200,684 pupils were enrolled in pre-school programmes, while at the primary and secondary school enrolments were 2,685,403 and 2,188,525, respectively (Malaysia 2016a).

Pre-primary *education* covers early childcare education (for children below 3 years) which comes under the purview of the 1984 Childcare Act and pre-school and kindergarten (for children aged 3+ to 5+ years) under the Education Act (1996). Early childcare education comes under the Women, Family and Community Development Ministry, while the pre-school education is under the purview of three ministries: the Ministry of Education, the Ministry of Rural and Regional Development, and the National Unity Department. Each of these ministries oversees various types of pre-schools. The KEMAS (acronym for the Community development department) kindergartens under the Ministry of Rural and Regional Development are located in rural and semi-rural areas of the country, while the

Perpaduan (translated Unity) kindergartens under the Department of National Unity are located in urban areas. Pre-schools which are annexed to primary schools are overseen by the Ministry of Education. In addition, the state religious departments also run faith-based kindergartens. Thus, the pre-school sector is handled by a variety of service providers.

Primary education, covering 6 years, aims to provide a foundation for pupils to be proficient in reading, writing and arithmetic (3R's). In 2011, the Ministry of Education revised the national curriculum for primary schools and began implementing the Primary School Standard Curriculum known by its Malay acronym KSSR (for *Kurikulum Standard Sekolah Rendah*) in stages (Malaysia 2016a). By 2016, this new curriculum was implemented in all primary schools. A national examination system of testing also accompanies the national curriculum. At the end of primary school, pupils will sit for the *Ujian Penilaian Sekolah Rendah*/The Primary School Achievement Test (UPSR/PSAT). This is essentially intended as a diagnostic test, though it is used to select students for admission into residential schools at the secondary level. Irrespective of their performance in the PSAT, all primary school pupils are promoted to Form One, the first year of secondary education.

Secondary education is the continuation of primary level education. A revised national secondary curriculum called the Secondary School Standard Curriculum known by the Malay acronym KSSM (*Kurikulum Standard Sekolah Menengah*) will be introduced after 2017 (Malaysia 2016a). The KSSM is aligned to and is a continuation of the KSSR curriculum at the primary level. It aims to provide learners with a comprehensive set of twenty-first-century skills and competencies. At the end of the third year of secondary school (at grade 9), the students are required to take a national assessment test, *Penilaian Menengah Rendah* (known as the PMR examination) or Lower Secondary Assessment examination. The PMR examination, which used to be a summative, national examination, has now been replaced by the PT3 (*Penilaian Tingkatan Tiga* or Form Three Assessment). This examination now involves national examinations in four key subjects: Malay, English, Mathematics and Science, while the assessments for the other school subjects are school-based. These changes to the PT3 examination are in line with recent efforts at reducing the dependence on centralized national examinations in favour of more school-based examinations. The students' performances on PMR or PT3 examinations will determine their academic streaming to the upper secondary level, i.e. whether to be in science, arts, technical or vocational streams. The selection of students and academic streaming to the upper secondary level will be determined centrally by the Ministry of Education.

At the end of the 2-year period in upper secondary education, the students will be assessed by a compulsory national examination, *Sijil Pelajaran Malaysia*/Malaysian Certificate of Examination (SPM/MCE). The SPM/MCE certificates are equivalent to O-level Cambridge University Examinations. This examination is usually taken by students who follow the academic track at the upper secondary level. An alternative route to the academic track is the vocational track leading to the *Sijil Pelajaran Malaysia Vokasional*/Vocational Malaysian Certificate of Examination (SPMV/VMCE) which, like the SPM examination, is a school-exit examination.

Post-secondary Programmes The post-secondary pre-university education pro-grammes are of various types. These involve mainstream school-based Form Six programmes conducted over 1.5 years which prepare students for the Malaysian Higher School Certificate or *Sijil Tinggi Pelajaran Malaysia* (STPM) conducted by the Malaysian Examination Council and accredited by the University of Cambridge Local Examination Syndicate (UCLES) in the United Kingdom. This examination is equivalent to the A-level examination in the United Kingdom.

In addition to the STPM programme, there are also pre-university matriculation programmes organized by local universities. These programmes are 1-year aca-demic foundation programmes which prepare students for admission to public universities.

The private sector is also involved in offering pre-university programmes for admission to foreign degree programmes. These include the Australian Matriculation (AUSMAT) programmes, Canadian Pre-U programmes, the International Baccalaureate and the courses leading to American degree programmes. In short, at the post-secondary level there is a variety of locally conducted programmes by both the public and the private sectors leading to enrolment to undergraduate degree programmes locally and overseas. The STPM examination and the matriculation programmes offered by local universities were for several years the sole route of entry into public-sector universities in Malaysia, but this has changed in the last year. Public universities like the University of Malaya now take as the entry qualifi-cation pre-university programmes like AUSMAT offered by private colleges.

Another key development in post-secondary education in recent years involves the transformation of vocational education in the country especially with the estab-lishment of vocational colleges which train students in the vocational and technical skills that have a direct link with work-related competencies and skills. Students in the vocational stream will study both vocational subjects and academic subjects identical to the normal school syllabi. Those with excellent results may further their studies at local institutions of higher learning or enter the job market (see Chap. 9 in this volume for a fuller treatment of Vocational and Technical Education).

Higher Education Malaysia's higher education sector comprises public universi-ties, private universities and university colleges, polytechnics and community col-leges. In 2011, the country had 20 public universities, 53 private universities, 6 foreign university-branch campuses, 403 active private colleges, 30 polytechnics and 73 public community colleges (Malaysia 2016b). There are also various univer-sities from the UK, the USA, Australia, Canada, France and New Zealand which offer twinning degree programmes in partnership with Malaysian private higher education institutions. Twinning programmes are degree programmes awarded by the foreign university, but taught partly or wholly in Malaysia (at the local partner institution) with the option or requirement to complete the rest of the programme at the foreign university. Thus, for instance, students may spend one or two of their 4-year programme in Malaysia and their subsequent years overseas. At present, several major universities such as RMIT University from Australia, Johns Hopkins University School of Medicine from the United States and the Royal College of

Surgeons from Ireland have established collaborative programmes with the local private institutions. In addition, some public-sector universities such as *Universiti Sains Malaysia* and *Universiti Putra Malaysia* offer distance-education programmes; currently, distance education is also the main mode of delivery of some private universities such as the Open University of Malaysia and Asia e-University. (Chapter 4 in this volume offers an extended discussion of the trends and issues in Malaysian higher education.)

The expansion in university education is a natural result of the increase in access to education at the primary and secondary school levels. Historically, up to the 1980s, the expansion of university education was limited mainly to the public sector. By 1995, for instance, about 20% of Malaysian students studied abroad partly because local institutions were unable to keep pace with the demand for higher education. This cost the country an estimated US$800 million, nearly 12% of Malaysia's current account deficit (*Guardian*, 2 July 2012). In response to this predicament, the Private Higher Education Institutions (PHEI) Act was passed in parliament in 1996 allowing for the establishment of private universities, thus expanding access to education at the tertiary level within the country. Although foreign universities were invited to partner with local private institutions through twinning arrangements since the late 1980s, the passage of the PHEI Act allowed for the expansion of access to foreign degrees on Malaysian soil (Da 2007). At present among the foreign universities with campuses in Malaysia are Nottingham University, the University of Reading and Herriot Watt University from the United Kingdom; Monash University and Curtin University from Australia; and Xiamen University from China. As a result of these developments, the higher education sector has not only expanded rapidly but also become increasingly varied given the combination of major global and local education providers.

In 2011, the student population in the higher education sector – both public and private –comprised more than a million students, of which about 93,000 were international students from more than 100 countries. In contrast, there were about 89,686 Malaysian students (27,003 receiving sponsorship and 62,683 self-funded) who were studying overseas in 2011 (https://www.studymalaysia.com/international/the-national-education-system/the-malaysian-higher-education-system-an-overview). The policy of internationalization of higher education in Malaysia in keeping with the demands of changing market economies has been actively promoted by the Ministry of Higher Education. The increase in foreign student enrolments in Malaysia has made the country a 'regional hub' in education.

Still, there are concerns about the quality of higher education highlighted in the *Higher Education Blueprint 2015–2025,* released in 2015, which lays out the targets for the transformation of the higher education sector (Malaysia 2015). Malaysian universities have not performed well in the global rankings and in 2015 only one Malaysian University was listed in the Quacquarelli Symonds (QS) World top 200 (although there are six in the Asian top 200) (QS Top universities, n.d.). No Malaysian University made it to the top 200 in either the Shanghai Jiaotong Ranking or the Times Higher Education Rankings (although the two leading Malaysian universities declined to participate in the latter). Recognizing that these rankings are not without

their problems, it may be noted that Malaysian universities have shown, in recent years, steady improvements on these performance indices, although the overall picture for the country's universities remains mixed. The Blueprint draws attention to the problem of graduate unemployment. The average figure for employment of graduates 6 months after graduation is at about 75% and employers regularly comment on the lack of critical thinking and poor communication skills among graduates. *The Eleventh Malaysia Plan* (the current 5-year development plan) acknowledges the challenges of producing a workforce well equipped to take on the employment challenges laid out in the development plans (Malaysia 2016c). Chapter 4 in this volume highlights some of the challenges faced by Malaysia's higher education sector.

1.4 Emergent Issues in Malaysian Education

In light of the broad overview of the Malaysian educational system highlighted above, several issues have emerged as representing ongoing challenges and tensions within the system. These are grouped under three themes, which are at their roots inter-related. These themes comprise access to education and the quality of education provided, centralization of the education system and the politicization of educational processes.

Access to Education and Quality of Education Opportunities for access to education in Malaysia have been expanding exponentially over the last five decades since independence in 1957. At independence, only 6% of school-age students had completed secondary education. In sharp contrast, by 2011, according to the *Education Blueprint*, 82% had completed secondary education (Malaysia 2012). In 2011, enrolment rates were 94% at primary level (after 6 years of education) and 87% at lower secondary level (after 9 years of education) (Malaysia 2012). The transformation in Malaysian education – particularly at the secondary level – has been from an elitist system to mass education system (Tan 2012). In effect, the country has achieved near universal education at the primary school level; however, closer scrutiny reveals that these overall figures on access to education tend to conceal some structural inequalities pertaining to access among certain population groups. For instance, a 2013 *Report on Access to Education Malaysia* prepared by SUAKAM, the Malaysian Human Rights Commission, reveals that for specific groups of children aged between 6 and 12 access to primary education was limited (SUAKAM 2013). These included the hard-core poor, indigenous populations, refugees and asylum seekers, undocumented children (i.e. those without birth certificates) and children in geographically remote areas in the interior especially in the East Malaysian states of Sabah and Sarawak. On the national scale, the number of children in these population groups remains relatively small, and efforts are being taken to involve these target groups in education programmes. Thus, for instance, while refugees and asylum seekers are currently not permitted to attend national schools,

there are 'learning centres' run by non-governmental organizations or faith-based groups outside the formal education sector to cater to these groups.

Despite these dramatic improvements in overall access to education, the *Education Blueprint* acknowledges that serious problems remain with the quality of education in a period of rapid expansion of educational opportunity. This is reflected in international assessments of student performance such as the Programme for International Student Assessment (PISA) and Trends in International Science and Mathematics Study (TIMSS). PISA results from 2009, the first year that Malaysia participated in the assessment, ranked the country at the bottom one third of the 74 participating countries, below the international and OECD average, and below its other Southeast Asian neighbours like Singapore and Thailand. More specifically, of the cohort of 15 year olds who were tested, 60% failed to meet the minimum proficiency levels in Mathematics, 44% did not meet minimum levels in Reading while the figure for Science was 43% (Malaysia 2012).

Similarly, bleak results were recorded in the TIMSS assessments (Kang 2013). TIMSS is a measure of student performance in Mathematics and Science in grade 4 (the Malaysian equivalent of Year 4 in primary school) and grade 8 (the Malaysian equivalent of Form 2 in secondary school). The *Education Blueprint (2013–2025)* mentions that when Malaysia first participated in TIMSS in 1999 its average student score was above the international average, but in 2007 – the last published results – it had slipped to below the international average, with a corresponding drop in ranking (Malaysia 2012). The TIMSS results are indicative not just of underachievement but, more seriously, a decline in performance (in absolute scores) over the years. Another paradox on the quality of education that is highlighted in the *Education Blueprint* is that while student achievement scores on international measures of educational attainment show progressive decline over the years, student achievement scores on national examinations show instead progressive improvement over the years (Malaysia 2012). This seemingly inverse relationship between international and national achievement scores raises important questions about what is tested in high-stakes national and international examinations and how it is assessed. (These findings provide the context for Chap. 6 in this volume which discusses Malaysian classroom practices.)

It is noteworthy in this regard, as a 2014 World Bank Report attests, that despite concerns with the quality of education in schools, the challenges to the 'quality of education' do not arise because of the shortage of financial resources. Malaysia's performance in education lags behind other countries with lower per-student expenditure. In other words, returns to investment on education are not as high as expected, a point recognized by the *Education Blueprint*.

Centralization of Education Another theme that has gained increasing traction in policy discussions on Malaysian education is the high level of centralization of the education system. The tension here is between the pull for system-wide cohesion, on the one hand, and the pull for diversity in educational initiatives and responses, on the other hand. The earlier constitutes a move towards greater centralization, while the latter is a move towards decentralization. This centralization-

decentralization tension has played out variously at various times in history. Historically, efforts at national building and fostering national unity through the education system had up until the 1980s been forged through initiatives that aimed at centralized control and monitoring of the education system. The *Razak Report* and the Education Act 1961 recommended a national school system and proposed broad systems for the country. These comprised *national schools*, which used Malay as the medium of instruction, and *national-type schools*, which were vernacular schools. Although they differed in terms of medium of instruction, both schools taught to a national curriculum and prepared students for national examinations in grades 5 (Year 5 in primary school), 9 and 11 (Form 3 and Form 5 in secondary school). In Malaysia, education is the responsibility of the federal government and even state or district education offices come under the direct purview of the federal government. The centralization of curriculum and assessment is thus overseen by specialized agencies of Ministry of Education. The Curriculum Development Division designs the national curriculum, the Examination Syndicate (*Lembaga Peperiksaan* in Malay) prepares and administers national examinations at the school level, while the Malaysian Examination Council (*Majlis Peperiksaan*) prepares and administers examinations for the Malaysian Higher School Certificate (or the *Sijil Tinggi Peperiksaan Malaysia*) examination, as well as the Malaysian Universities English Test, taken at the end of Form 6 for entry to university. The Textbook Bureau coordinates the preparation of national textbooks, which are used throughout the national school system. So, the national curriculum, national examinations and national textbooks point to a highly centralized education system.

In recent years, there has been concern that a highly centralized education system – both at the school level and at the tertiary level – had not been able to address the emerging challenges of rapid economic expansion, which has in turn been accompanied by an expansion in educational access (Lee 2006; Tan 2012). While the system still remains centralized, there have been in the recent past attempts at decentralizing the system. Thus, from 1982, district education offices were introduced to monitor and oversee school administration at the district level so that 'the system' would be more responsive to local needs. This added an additional layer to the bureaucratic structures already in place at the national, state and school levels. Lee (2006) uses the term 'centralized decentralization' to characterize these efforts at administrative decentralization, which essentially involved decentralization of selective administrative functions for some aspects of management from higher levels in organizational hierarchy to the lower and more local levels. The roles and functions of the district education offices were basically supervisory, collecting and managing data from schools and passing that information to the state education offices for use in decision-making at the national level or in some cases at the state level in collaboration with the national authorities. The district education offices were also involved in disseminating national policies at the local level and provided a feedback loop on the decision-making process. Lee (2006) notes that the establishment of district educational offices has not appreciably led to local decision-making on the national curriculum or on the hiring and firing of teachers, and delivery mechanisms.

While these decentralization efforts have not significantly loosened the tight control that the federal and state authorities have wielded in shaping policy and practice in education, there have been, recently, several initiatives aimed at encouraging more local involvement at decision-making. Among these are the cluster-school and trust-school programmes, as well as the introduction of school-based assessment. Cluster schools are high-achieving schools that are allowed wider autonomy in administration as well as an additional financial allocation to develop their niche curriculum focus. Thus, some cluster schools could be accorded more autonomy to develop their niche areas, comprising, for instance, a focus on athletics or robotics or languages. Schools decide on their niche areas and design programmes to accentuate their development. Trust schools (or *Sekolah Yayasan*, in Malay) are public schools that are jointly managed by *Yayasan AMIR* (translated, the AMIR trust) and school principals under the umbrella of the Ministry of Education, in collaboration with GLC (government-listed companies) partners such as Khazanah Nasional, United Engineers Malaysia (UEM) and Westports (Hamilton 2014). Trust schools are accorded some degree of autonomy in delivering the curriculum and administration of the schools. An important part of the trust schools is a system of continuous professional development which has been put in place to support teachers. Thus while the schools are required to follow the national curriculum prescribed by the Ministry of Education, they are encouraged to experiment with modes of delivery and design of supporting curriculum that fosters collaborative active learning and higher-order thinking. Likewise, in school management and administration, principals are accorded greater autonomy in financial planning to achieve pre-set performance targets. Thus, in reality, trust schools are essentially public schools operating within the national school system with some latitude to various aspects of curriculum implementation and financial management. Like cluster schools, the trust schools are part of what Lee (2006) has aptly labelled 'centralized decentralization'.

Another initiative aimed at decentralization involves the national examination system which made way for school-based assessment at two levels. Beginning in 2014, PMR examination, which was a centralized high-stakes summative examination in grade 9 (Form 3), made way for a combination of school-based and centralized examinations. As a result of this change, the PMR examination was re-named the PT3 examination. PT3 is the Malay acronym for *Pentaksiran Tingkatan Tiga* (translated Form Three Assessment), and beginning in 2016, the UPSR examination at the end of grade 5 was re-framed as a school-based assessment. The rationale for this shift towards more school-based assessment was to moderate or reduce the wash-back effect of high-stakes assessment on the teaching-learning processes and to allow for alternatives to paper-and-pencil final examinations. School-based assessment allowed for feedback on formative-learning processes and to capture pupils' growth and development in learning. The new assessment system operates within a national assessment framework, with the criteria for each assessment exercise driven by national targets for each level, framed and moderated by the Ministry of Education. While the task of assessment has been decentralized and managed at the school level, there have been concerns that teachers have been burdened by

record keeping and preparation of assessment reports as a result of decentralization efforts for assessment (Ong 2010).

Apart from the school system, the processes of limited decentralization of control have also impacted the higher education sector (Lee 2006). The passage of the Private Higher Educational Institutions Act 1997 allowed for the establishment of private universities and transformed the higher education sector in Malaysia which hitherto was solely the responsibility of the public sector. Still, higher education – both public and private – is regulated by the Ministry of Higher Education. The ministry through agencies like the Malaysian Qualifications Agency accredits and approves various degree programmes at both the undergraduate and the postgraduate levels, though some universities like the five major research universities have been accorded self-accreditation status (Husnah 2010). The University and University Colleges Act 1971 provides for the establishment and administration of universities in the country and, among other things, regulates the involvement of students in campus and national politics. Also, vice chancellors of public universities are in principle appointed by the *Yang DiPertuan Agong* (the Supreme Head of the country), although operationally the appointments are made by the government (see Chap. 3 as well as the essay by Gauth Jasmon in Chap. 10 on the appointment of vice chancellors in public universities). Thus, broadly, Lee's (2006) characterization of 'centralized decentralization' applies to the higher education sector as well (Moshidi 2010).

Politicization of Educational Processes Apart from the centralization of educational control, another issue that has been debated in Malaysia is the politicization of education, i.e. the involvement of the state, political actors or political parties from Malaysia's ruling coalition in educational decision-making. This has been discussed at length in Chap. 3 on Politics and Education in this volume. Samuel and Tee (2013) provide an example of the politicization of education in the introduction of the PPSMI policy involving the teaching of Mathematics and Science subjects in English in the school system and the subsequent reversal of the policy. The policy was first announced in the closing speech at the 2002 United Malays National Organization (the main political party in the ruling coalition) annual convention by the then Prime Minister Dr. Mahathir Mohamed. The rationale for the policy was framed in ethnic terms as benefiting the Malays. In 2009, the policy was reversed in response to criticisms voiced by cultural and linguistic organizations like the *Dong Jiao Zong* – an umbrella organization representing the interests of Chinese independent schools – and GAPENA, a federation of Malay writers associations. Tensions in the cultural politics of education in a multi-ethnic, multi-linguistic society provide the milieu for the politicization of education as various organizations comprising political parties as well as cultural and linguistic organization spearhead the interests of their constituents (Voon 2008; Kua 2015). The interface between language, identity and education continues to be a site for contestation. Language-related issues are discussed in several chapters of this volume: Chap. 8 on indigenous education in the East Malaysian state of Sarawak, Chap. 7 on curriculum especially regarding issues surrounding medium of education and Chap. 5 on policies and educational practice.

1.5   Closing Remarks

In painting a picture of Malaysia's education landscape with a broad brush, this chapter has provided the context through which subsequent chapters in this volume may be viewed. While Educational Reports (such as the *Razak Report*), Acts of Parliament and the *Education Blueprint* (2013–2025) provide an overview of the framework of educational policy initiatives that drive Malaysian education, these documents are aspirational and offer a macro-level perspective of drivers of the educational system. The reports offer a template for viewing the complex set of inter-related issues that have confronted policy makers and practitioners alike. These issues include the challenge of widening access to education and the concomitant challenges of sustaining quality of education; the move towards centralization to maintain system coherence while at the same time being responsive to situated complexities at the local level; and the increasing politicization of the educational processes as different constituents vie for influence in a multi-ethnic, multi-cultural and multi-lingual polity. It is this broad framework that helps us explain the 'working out' of the educational system in Malaysia, and the ways in which debates and deliberation on education may play out in the future. It is in this light that the essays in Chap. 10, taken together, offer a tapestry of perspectives and stances towards the future as the country comes to terms with socio-economic development and with its cultural, linguistic and social diversity.

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Chapter 2
Race-Based Policies and Practices in Malaysia's Education System

Tan Yao Sua and R. Santhiram

Abstract The development of higher education in Malaysia has undergone rapid expansion since the 1990s as a result of the combination of several internal as well as external factors. Apart from the public institutions of higher learning, this rapid expansion also involved the private institutions of higher learning. Despite this rapid expansion, equal access to the public institutions of higher learning remains an acute problem, especially to the non-Malays. The issue of standards and quality is also a major concern amidst the massification of higher education. The internationalization of higher education within this rapid expansion of private higher education has led to intense institutional competition at the expense of the smaller institutions. It is inevitable that the rapid expansion of higher education has accentuated the problem of graduate unemployment. This problem is compounded by the disparity in job opportunities along ethnic lines that does not augur well for the nation-building process in a plural society like Malaysia. The different levels of English proficiency between the graduates of public institutions of higher learning (mainly Malays) and the graduates of private institutions of higher learning (mainly Chinese) have led to this disparity. The parallel public and private sector expansion of higher education has resulted in a dual system of higher education along linguistic and ethnic lines. Again, this does not augur well for the nation-building process in Malaysia.

2.1 Introduction

Educational equity and equality is a major concern in worldwide educational development. Unfortunately, in Malaysia, there are some areas of education policies and practices that are still based on ethnic considerations, depriving some ethnic groups

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of equity and equality in education. This has much to do with the fact that Malaysia is still trapped in ethnic-oriented old politics continually appealing to ethnocentric sentiments (Gomez and Saravanamuttu, 2013). It should be noted here that Malaysia is a plural society comprising three main ethnic groups, namely, Malays, Chinese and Indians. The Malays are the indigenous majority group, while the Chinese and Indians were originally immigrants but subsequently developed roots into settled communities. As far as educational development is concerned, Malaysia allows for a multilingual primary school system, comprising the Malay primary school (commonly known as the national school) and the vernacular schools, namely, the Chinese and Tamil primary schools. But at the postprimary level, a monolingual education system is imposed on all ethnic groups with the national language, i.e., the Malay language, serving as the main medium of instruction, though increasing emphasis is given to English due to the all-pervading influence of globalization.

However, the vernacular schools are not given a fair treatment in terms of the allocation of development funds, giving rise to the accusation of ethnic discrimination against the vernacular schools. Instead, the bulk of the funding goes to the national schools. Meanwhile, the role of the national school as the mainstream school that serves as the crucible of the nation-building process has not been effective, with increasing numbers of non-Malays, especially Chinese students, attending the Chinese primary schools. This has resulted in the decision of the government to make the national school the school of choice for all races through a host of strengthening measures. It is hoped that such a policy would attract more non-Malay students, especially Chinese students, to attend the national schools with the aim to achieve greater ethnic integration within the segregated primary school system in Malaysia. However, this policy is not well received by supporters of the vernacular schools.

At other levels of education, the government has implemented a preferential policy in favor of the Malays. Fully residential secondary schools are built by the government and the Council of Trust for Indigenous People (*Majlis Amanah Rakyat*, or MARA), a public enterprise, to advance the educational mobility of the Malays. In addition, preuniversity colleges for the Malays are also built by the government. At the tertiary level, an ethnic quota system of admission to public university in favor of the Malays is also implemented. All this has denied equitable access to educational institutions among the non-Malays. But the fact is that the Malays had been deprived of socioeconomic mobility (including educational mobility) due to the adoption of a divide and rule policy by the British colonizers. Despite independence in 1957, the Malays continued to lag behind the non-Malays. It was only after the 1969 racial riots that the government began to provide preferential treatment to the Malays.

This chapter looks at race-based policies and practices in the Malaysian education system. It begins with a discussion on the inequitable allocation of development funds to the vernacular schools. It then focuses on the government's decision to elevate the national school as the school of choice for all races. Finally, it examines preferential treatment of the Malays in the provision of various levels of education at the expense of the non-Malays.

2.2 Allocation of Development Funds

Despite being an integral part of the national education system, the vernacular schools are not given an equitable treatment as far as the allocation of development funds is concerned. The government is only obliged to provide the operating expenditures as well as trained teachers and clerical staff for these schools. This has a lot to do with their status as partially aided schools. For this, we have to understand the origin of these schools. Most Chinese primary schools began as self-financed community schools built on private lands. As for the Tamil primary schools, especially estate Tamil schools, which form the bulk of the Tamil primary schools, they were built by estate managements under the 1920 Labor Code. As such, the development of the Chinese and Tamil primary schools is respectively entrusted to the community and estate management. But this is a historical legacy that the government should not have taken into consideration in the allocation of development funds. By contrast, the national schools are built by the government and their development is therefore supported by the government as fully aided schools. This dichotomy has been construed by the non-Malays as a form of racial discrimination against the vernacular schools. They demanded transparency in the manner in which development funds are allocated. They also demanded that the allocation of development funds should be based on the enrolment of schools.

Since the 1970s, the Chinese and Tamil primary schools were not given equitable development funds for infrastructural upgrading (see Table 2.1). This under-allocation has remained a problem throughout the 1990s and the early 2000s under the Sixth Malaysia Plan (6MP) (1991–1995), Seventh Malaysia Plan (7MP) (1996–2000) and Eighth Malaysia Plan (8MP) (2001–2005) (see Table 2.2). This inequitable allocation of funds is quite self-evident as the funds were not given in proportion to the percentages of students. The same thing goes to the Ninth Malaysia Plan (9MP) (2006–2010). The Chinese and Tamil primary schools were respectively given meager development funds of 3.6 per cent and 1.4 per cent even though

Table 2.1 Ministry of Education estimates and allocations of development funds for primary schools, 1972–1978

Year	National schools	Chinese primary schools	Tamil primary schools
1972	15,833,276	578,400	243,400
1973	24,856,230	746,500	139,450
1974	36,947,345	1,016,300	420,000
1975	28,790,308	2,309,900	1,569,000
1976	37,015,313	5,212,600	518,200
1977	30,427,850	1,892,800	880,600
1978	63,248,005	6,340,880	2,122,010
Total	239,519,483	18,097,380	5,892,660
Percentage	91	7	2

Source: cited in Loh (1984, p. 109)

Table 2.2 Allocation of development funds to primary schools from the 6MP to the 8MP

		National schools	Chinese primary schools	Tamil primary schools
6MP	Allocation	1,133,076,000	102,726,000	27,042,000
	(Percentages)	(89.72)	(8.14)	(2.14)
	No. of students 1991	1,845,400	583,218	99,876
	(Percentages)	(72.98)	(23.07)	(3.95)
7MP	Allocation	1,027,167,000	25,970,000	10,902,000
	(Percentages)	(96.54)	(2.44)	(1.02)
	No. of students 1996	2,128,227	595,451	102,679
	(Percentages)	(75.30)	(21.07)	(3.63)
8MP	Allocation	4,708,800,000	133,600,000	57,600,000
	(Percentages)	(96.09)	(2.73)	(1.18)
	No. of students 2001	2,236,428	615,688	89,040
	(Percentages)	(76.04)	(20.93)	(3.03)

Source: cited in Tan (2006, p. 2)

their students constituted 21.12 per cent and 3.124 per cent of the total primary school students (*Nanyang Siang Pau*, 15 October 2006).

Given this meager allocation, the Chinese and Tamil primary schools, especially those in urban areas, are faced with the daunting task of infrastructural upgrading to cope with increased enrolment. This problem is particularly acute among the Chinese primary schools. A large number of them have an enrolment rate surpassing the optimal rate stipulated by the government, i.e., 1050 students per school. The Chinese primary schools are fortunate in that the Chinese community has the internal financial resources and resilience to fund infrastructural development projects through a host of fundraising campaigns. It was reported that since the 1990s, charity concerts performed by local Chinese artistes had managed to raise large sums of money to fund various school-building projects (*Nanyang Siang Pau*, 26 October 2006). These fundraising campaigns are generally led by the Board of Governors (*Dongshibu*) in collaboration with the parent-teacher association (PTA) and the Old Boys' Association. The Board of Governors of the Chinese primary schools comprise community leaders, most of whom are successful businessmen, who contribute generously to these fundraising campaigns. More importantly, they are able to mobilize mass support for these campaigns. This has led to the strong development of the Chinese primary schools in the country despite the lack of government financial support. This is testified by the fact that more than 90 per cent of Chinese parents enroll their children in these schools. In 2011, for instance, about 96 per cent of Chinese students were enrolled in the Chinese primary schools (Ministry of Education Malaysia 2013).

In contrast to the Chinese primary schools, the Tamil primary schools are in a pathetic state. Lacking in financial resources as well as community leadership, coupled with the unsympathetic attitude of estate managements, they are unable to move forward like the Chinese primary schools. This has been a deep-seated problem.

Sandhu (1969) provides a vivid description of the pathetic state of the early estate Tamil schools:

> The schools were usually simple shed, often with no provision for separate classes, all the grades being taught in one class by the same teacher. Attendance was seldom compulsory. Indeed, most estates provided job opportunities for children from the age of ten to twelve years. This incentive, coupled with the general ignorance and illiteracy of the parents and the need for the children to work in order to supplement the family income, meant that most children left schools after a few years (p. 60).

The plight of the estate Tamil schools was also highlighted by the 1973 Dropout Report prepared by the Ministry of Education. The Report singled out the estate schools as the smallest and poorest in the whole education system with 88 per cent of them having an enrolment of less than 200 students. It noted that many of these schools lacked the basic facilities such as proper school buildings, adequate classrooms, playing fields and toilet facilities. Some are still located in former rubber smoke-houses, drama-annexes of temples and other dilapidated buildings (Marimuthu 2006). A comment by Samuel (2008) on the state of Tamil primary schools confirmed that the host of problems confronting the Tamil primary schools remained largely unresolved. He notes that most of the Tamil primary schools are single-storey wooden blocks and look like longhouses. Their infrastructure is largely in a deplorable state. Canteens hardly exist and libraries are small. The school environment is not conducive to either learning or teaching. It is not surprising that there is an exodus of Tamil school students to the national school. In 2011, 44 per cent of Indian students were enrolled in the national schools (Ministry of Education Malaysia 2013). Clearly, the Tamil primary schools have become the main casualty of the inequitable distribution of development funds by the government.

2.3   The National School as the School of Choice

Integrating the multilingual primary school system has always been a prime concern to the government as it regarded such a primary school system as malintegrative with a clear ethnic divide between the schools. Earlier efforts in building the integrated schools in the 1980s and the vision schools in the 1990s, involving the relocating or merging of three streams of primary schools, had not been successful. The main stumbling block was the Chinese educationists affiliated to the United Chinese Schools Committees' Association (UCSCA) and the United Chinese School Teachers' Association (UCSTA), the vanguards of the Chinese primary schools, refused to allow the Chinese primary schools to participate in these schools (Tan and Santhiram, 2014). But the government had not given up hope. In 2006, it came out with a new strategy to integrate the Malaysian primary school students following the launching of the 9MP. Among other things, the 9MP aimed to make the national school as the school of choice for all races (Malaysia 2006). This aim was subsequently incorporated into the National Educational Development Blueprint

(2006–2010) prepared by the Ministry of Education. A host of measures were adopted by the blueprint to realize the aim. These measures included the upgrading of infrastructural facilities, offering of Chinese and Tamil as elective subjects, inculcating academic excellence, promoting a positive school culture and climate, providing strong support systems, strengthening the basic 3Rs (reading, writing and arithmetic) skills, producing students with high aspirations and moral values, implementing of effective curriculum and ensuring quality and effectiveness of administrators and teachers (Kementerian Pelajaran Malaysia, KPM 2006).

The move by the government to make the national school the platform to foster unity among the various races is viewed with much apprehension by some quarters, especially the Chinese educationists, disregarding its noble intent to uphold the integrative role of the national school. To the Chinese educationists, such a move will lead to inequitable treatment of the vernacular schools and the consolidation of a common language policy based on the Malay language at the primary level. The President of UCSCA, Yap Sin Tian, cautioned that this intervening measure would create disparity between the national schools and other types of schools and constitute a breach of the basic tenet to provide equal educational access to all (*Nanyang Siang Pau*, 23 April 2006). Meanwhile, the UCSTA feared that it would lead to the marginalization of the vernacular schools (*Sin Chew Jit Poh*, 28 May 2006).

The problem lies in the fact that since the 1970s, the national schools have not been able to attract a significant number of non-Malay students to the extent that a majority of these schools have become a predominantly Malay enclave. This is a long-standing problem that the government has not been able to resolve. In 2002, for instance, out of a population of 2,211,971 students enrolled in the national schools, the number of Chinese students only constituted 2.1 per cent (46,670 students) and Indians 4.3 per cent (95,180 students) (Abdul Rafie 2005). Further complicating the matter is that there is an increasing outflow of Malay students to the Chinese primary schools. In 1985, for instance, there were fewer than 8000 non-Chinese students enrolled in the Chinese primary schools (*New Straits Times*, 7 April 1995). But by 1993, their numbers had increased markedly to 21,508, constituting 3.66 per cent of the total Chinese primary school population (*Nanyang Siang Pau*, 19 October 1993). In 1995, their numbers were well over 35,000, of which 25,000 were Malay students (*New Straits Times*, 7 April 1995). Their numbers continued to increase since then. In 2006, out of a total of 639,310 Chinese primary school students (Ho 2008), 60,096 students or 9.4 per cent were non-Chinese students (*Nanyang Siang Pau*, 7 September 2006). By 2012, the number of non-Chinese students had increased to 81,011, constituting 13.4 per cent of the total Chinese primary school population (Yap, 2013). Although this outflow has not reached a critical level, it is, nevertheless, a wake-up call to the government that something must be done to strengthen the position of the national schools. However, looking from a different perspective, the presence of non-Chinese students in the Chinese primary schools could help to enhance ethnic integration within the segregated primary school system in Malaysia. But then, such a development is least expected by the government and is against its aspirations to uphold the national schools as the crucible of the nation-building process.

The measure to offer Chinese and Tamil as elective subjects deserve our attention primarily because it provides the extra impetus and incentive to attract more non-Malay students into the national schools. Prior to this, the learning of Chinese and Tamil was not given such an emphasis and position. Traditionally, Chinese and Tamil are being taught as language subjects through the Pupils' Own Language (POL) classes for students from Primary Year Three to Year Six. But these POL classes are implemented in a haphazard, half-hearted manner. Beginning in 1996, some national schools offered Chinese and Tamil as Additional Language subjects within the formal school curriculum for students from Primary Year Three to Year Six with an allocation of four periods a week. In 2003, Chinese and Tamil for Communication classes were offered within the formal curriculum in some national schools with an allocation of two periods per week for students from Primary Year One to Year Six students (Ong 2009). The introduction of Chinese and Tamil as elective subjects is a further breakthrough in the teaching of these two subjects in the national schools.

The introduction of Chinese and Tamil as elective subjects in the national schools is a deliberate policy intervention to increase non-Malay enrolment in the national schools, though it also catered for Malay students who aspired to pick up an extra language. The two elective subjects would replace the Chinese and Tamil for Communication classes. On 26 June 2006, the Ministry of Education, through its parliamentary secretary, officially announced that this policy initiative would be implemented in 2007 and would involve a total of 220 national schools, of which 150 schools would offer Chinese while the remaining would offer Tamil (*The Star*, 26 June 2006). However, there was much anxiety as to how exactly the government intended to incorporate the teaching of Chinese and Tamil in the national schools. On 8 January 2007, it became clear that there were three models of implementation depending on the capacity and needs of the schools (*Nanyang Siang Pau*, 8 January 2007). The first model involved the allocation of five periods per week with classes conducted at the end of the school hours. This model applied to national schools which are single-session schools. The second model involved the allocation of 12 periods per week (for students from Primary Year One to Year Three) and 10 periods per week (for students from Primary Year Four to Year Six) with classes conducted in the afternoon. This model also applied to national schools which are single-session schools. The third model involved the allocation of five periods per week with classes conducted on Saturdays. This model applied to national schools which are double-session schools (Ong 2009).

The introduction of Chinese and Tamil as elective subjects, coupled with other strengthening measures, certainly have the potential to attract more non-Malay students to the national schools. For one thing, more Indian students would be attracted to the national schools given the general deplorable state of Tamil primary schools. But it is a different case for the Chinese. Given the strong development of the Chinese primary schools, it may not be an easy task for the national schools to attract a substantial number of Chinese students away from the Chinese primary schools. As far as the teaching of Chinese as an elective subject is concerned, it may not satisfy the quest for mother tongue education among the Chinese in Malaysia.

Nevertheless, because of the dire need for ethnic integration at the primary level, the strengthening of the national schools is a timely policy intervention. While this policy intervention may not affect the general support for the Chinese primary schools, there is a possibility that some Chinese parents may send their children to the national schools, especially those from English-speaking families. These parents are pragmatic in the sense that they only want their children to pick up Chinese as a communicative language, and learning Chinese as an elective subject may be an attractive option. Also, parents who do not favor rote learning – a hallmark of the Chinese primary schools – may choose to send their children to the national schools. While the Chinese primary schools thrive on rote learning, it is generally agreed that such a learning method has stifled the students' creative mindset. What actually works against the national schools is the general perception that these schools are heavily Malay and Islamic centric to the extent that non-Malays are discriminated against. This has been reported in the press; for instance, a recent case involved non-Malay students being asked to eat in the toilet during the Malay fasting month (*Malaymail Online*, 23 July 2013). All this has given a negative image to the national schools and discourage non-Malays, especially the Chinese, from enrolling with these schools. It is generally recognized that Islamization has had an adverse impact on interethnic relations in Malaysia. As a result of Islamization, the Malays are taking extra measures to uphold Islamic practices, culminating in the heightening of Islamic awareness. This heightening of Islamic awareness has also made inroads into the national schools, where Islamic practices are increasingly being upheld by the school authorities.

2.4   Preferential Policies

Preferential policies in favor of the Malays implemented by the Malaysian government beginning in the 1970s have resulted in racial discrimination in the Malaysian education system. These policies were implemented under the aegis of the New Economic Policy (NEP) (1971–1990) and incorporated into the official development plans (from the Second Malaysia Plan right up to the Fifth Malaysia Plan and subsequently the First Outline Perspective Plan to the Second Outline Perspective Plan). The NEP was a social engineering policy implemented to redress socioeconomic disparity between the Malays and the non-Malays, especially the Chinese, through massive redistribution programs aimed at achieving the twin goals of poverty reduction and the restructuring of society.

As previously mentioned, this socioeconomic disparity was largely the historical legacy of the divide and rule policy of the British colonial government. In the case of the Malays, they were deprived of the much-needed socioeconomic mobility as they were encouraged by the British colonial government to engage in the semisubsistence rural peasant economy which offered little socioeconomic advancement (see, e.g., Stevenson 1975). They were also provided with a rural-based terminal primary education (initially six years but later shortened to four years) underpinned

by a curriculum that emphasized weaving, carpentry, basket-making and gardening with little arithmetic, reading and writing along with the teaching of moral education to instill obedience to authority (Abdul Rahman 2007). Such a provision of rudimentary education was a form of social control meant to confine the Malays, especially the peasantry, to their social milieu (Haris 1983).

On the other hand, the Chinese were encouraged by the British colonial government to engage in the modern cash economy, especially the tin mining industry, leading to the proliferation of Chinese townships or urban settlements and the emergence of a merchant class, especially along the West Coast states of the Malay Peninsula where there were large concentrations of the Chinese (Lim 1978). Meanwhile, the Chinese had far better educational opportunities than the Malays due to the strong development of the Chinese school system which comprised the Chinese primary and secondary schools. For instance, as early as 1938, there were already 996 Chinese primary schools and 36 Chinese secondary schools in Malaya (Tan 1988).

Apart from the Chinese schools, the Chinese could also attend urban-based English schools established by the British colonial government and the Christian missionaries. For instance, in 1937, the Chinese constituted 50 per cent of the students attending English schools in the Federated Malay States (Selangor, Perak, Pahang and Negeri Sembilan), while the Malays only constituted 15 per cent of the student population (cf. Loh 1975) as the only means for them to go through an English education was through the limited avenues of the Special Malay Classes involving switching, at the fourth grade for boys and third grade for girls, to these classes (Chai 1977). These English schools were then regarded as the best means of educational mobility in the country. It goes without saying that with better educational opportunities, the Chinese were able to enhance their economic mobility via occupational advancement.

After the British left, the Malays had not made any significant inroads in the economy despite the enormous opportunities that emerged in the postcolonial period. Their economic activities continued to rely on subsistence agriculture (Jesudason 1989). Meanwhile, the educational mobility of the Malays remained terminal at the primary level as there was little opportunity for Malay secondary education. Although Malay secondary classes attached to English-medium secondary schools were established beginning in 1958, these classes only offered limited places to the Malays. For instance, in 1960, only 4953 Malay students were given the opportunity to attend these classes (Alis 2006). The Malays had to wait until 1965 to witness the establishment of the first Malay-medium secondary school, i.e., the Alam Shah School located in Cheras (Ramlah 2005). It was not surprising then that at the time of independence, the population census showed that the average educational attainment of the Malays was 2.09 years, below the average educational attainment of the country, i.e., 2.27 years (Muhammed 2014).

In striking contrast to the Malays, the Chinese were able to make impressive gains following the departure of the British colonial government by moving into new industries as well as economic areas no longer controlled by the British colonial government (Jesudason 1989). Similarly, they continued to enjoy better educa-

tional mobility than the Malays at the time of independence as indicated by their average educational attainment of 2.46 years (Muhammed 2014). There was also a marked improvement in educational opportunities for the Chinese at the secondary level with 49,536 students attending the Chinese secondary schools in 1957 as compared to only 5830 students in 1950 (Tay 2001).

The lack of socioeconomic mobility among the Malays was one of the root causes of the racial riots in the aftermath of the hotly contested 1969 General Election, more so when their political position in some states was threatened by the strong performance of Chinese opposition political parties. It should be noted here that maintaining political dominance was perhaps the only means through which the Malays could safeguard their interests. Following the racial riots, the United Malays National Organisation (UMNO)-led government began to implement preferential policies in favor of the Malays under the aegis of the NEP to advance their socioeconomic mobility by invoking its political dominance within the coalition government.

In the area of education, the UMNO-led government established the Special Model Schools to improve the quality of education and to reduce dropouts from the national education system among the rural students. Given the fact that the Malays constituted the bulk of the population in rural areas, it is safe to assume that they were the main beneficiaries of these special schools. These special schools combined potential Primary Year Two students with secondary students within the same premises and under the same management with boarding facilities for those aged 10–17 years. In 2007, there were 1117 primary students and 10,598 secondary students attending these special schools. There are currently 12 such schools in Malaysia (Ministry of Education Malaysia 2008).

However, other efforts predated the establishment of the Special Model Schools. One such effort was the establishment of fully residential secondary schools that catered specifically for science education for the Malays in almost every state in Malaysia. These schools were officially known as the Science Secondary Schools. They offered only the pure science electives since their establishment under the aegis of the NEP was specifically to provide educational opportunity for the advancement of Malays in the pure and applied sciences (Rosnani 2004). In 2006, there were 16 Science Secondary Schools enrolling about 16,000 students in the country. By 2009, the number of Science Secondary Schools increased markedly to 35 (Lee, 2013). Although these schools allowed for the admission of non-Malay students, their numbers were relatively small as only 10 per cent were allowed to enter these schools.

Meanwhile, MARA has also played a key role in advancing the educational mobility of the Malays. MARA is a public enterprise transformed from the Rural Industrial Development Agency (RIDA) in 1956. RIDA was established in 1954 to assist rural small and medium Malay entrepreneurs to obtain capital and skills either for the purpose of starting or expanding their own small and medium-size businesses or participating in the business of buying and trading shares (Ariffin 2005). MARA was given a massive injection of development funds to help advance the educational mobility of the Malays. It began to establish the fully residential MARA

Junior Science Colleges *(Maktab Rendah Sains* MARA, or MRSM) in 1972 as a means to increase the number of Malay students taking up science and science-related subjects.

In 1984, there were 10 MRSMs with 6311 students, and in 2000, the number of schools had increased to 25, enrolling a total of 15,424 students (Lee 2006). By 2005, MRSMs enrolled a total of 20,162 students, of which 8017 were lower secondary students (Secondary Year One to Year Three) and 12,145 were upper secondary students (Secondary Year Four to Year Five) (Malaysia 2006). In, 2015, there were a total of 51 MRSMs spread across the country. These MRSMs are divided into three different types: some run upper secondary levels, some run lower secondary levels, but most run from lower secondary to upper secondary levels.

Suffice to say that these two types of fully residential schools (Science Secondary School and MRSM) are premier schools attended by elite Malay students who have to go through a stringent selection process prior to admission. Upon admission, they are provided with superior facilities and better qualified teachers to excel in their secondary education and to subsequently qualify for higher education. The aim is to ensure that they could participate in the modern sector of the economy (Shireen 1998). These two types of fully residential secondary schools even allow instruction in English to facilitate movement into higher education abroad, giving rise to accusations that there are two standards, one for the Malays and one for the others (Jasbir and Mukherjee 1990). A recent development worthy of note is the proposal of the government to offer the International General Certificate of Secondary Education (IGCSE) curriculum to all 45 MRSMs in the country (Lee 2013). Such a proposal is to ensure that more Malay students could pursue a higher education abroad.

While these elite fully residential secondary schools were specifically established to produce academically excellent Malay students, there is an alternative view that this may not work in the favor of the Malay students, especially from the learning perspective. It is argued that the insularity and homogeneity of these fully residential secondary schools diminishes the overall quality of education itself as students compete in a limited noncompetitive environment (M. Bakri 2003). Indeed, with the presence of more non-Malay students, this would have provided the impetus for a more competitive learning environment to the Malay students.

At the preuniversity level, a two-year matriculation program was provided by the government in 1970, mainly for the Malays, to ensure that there are enough qualified Malay students to take up the number of places in the public universities that had been reserved for them under the ethnic quota system. In its initial implementation, students were attached to 11 selected residential schools during the first year. They then proceed to the public universities to complete their second year. The program had its beginnings in the Agriculture University of Malaysia (*Universiti Pertainan Malaysia*, or UPM – now renamed as *Universiti Putra Malaysia*) and the Technology University of Malaysia (*Universiti Teknologi Malaysia*, or UTM). Other public universities such as the University of Malaya (*Universiti Malaya*, or UM), the Science University of Malaysia (*Universiti Sains Malaysia*, or USM) and the National University of Malaysia (*Universiti Kebangsaan Malaysia*, UKM) subsequently introduced various matriculation programs to admit Malay students who

upon successful completion were eligible for undergraduate courses in science and technology (Lee 2006).

In 1998, due to a lack of standardization across these matriculation programs, the Ministry of Education decided to establish matriculation colleges to take over the matriculation programs from the public universities. The Matriculation Division of the Ministry of Education was established to consolidate and manage these matriculation programs (Abdul Hakim 2006). In 2000, the total number of students taking matriculation programs stood at 25,689 (KPM 2001). Students selected for these programs can either major in science (chemistry, physics or biology) or accountancy (accounts, economics or business management) (Ministry of Education Malaysia 2008). The matriculation programs were also shortened to one year to increase the output of Malay graduates. Clearly, the government treats these one-year matriculation programs as equivalent to a two-year Sixth Form preuniversity education that leads to the Malaysian Higher School Certificate (*Sijil Tinggi Pelajaran Malaysia*, or STPM) examination.

Undoubtedly, the matriculation colleges provided a shorter and easier alternative route than the existing two-year Sixth Form classes to Malay students seeking admission to public universities. There is a general perception that the STPM examination is of higher standard than the matriculation examination because students have to undergo an extra year before they can sit for the STPM examination. This is also indicated by the fact that STPM students tend to outperform matriculation students in the public universities (Bidin et al. 2001; M. Bakri 2003). In spite of this, a large number of STPM applicants (mainly Chinese), some with exemplary results, fail to obtain places in the public universities, resulting in discontent and heightened ethnic consciousness among these students. On the other hand, a high percentage of matriculation students manage to secure places in the public universities. For instance, 90 per cent of matriculation students were given places in the public universities in the 2002/2003 academic sessions (Abdul Hakim 2006).

While the matriculation colleges were originally established to ensure that Malay students could take up the places reserved for them in the public universities under the ethnic quota system, the government did not undertake measures to make these colleges more competitive when this ethnic quota system was replaced by a merit-based system in 2002. Instead, more matriculation colleges were established since then, resulting in increased enrolment of Malay students in the public universities (see Lee 2004b). For instance, four matriculation colleges were established under the 9MP. By 2008, there were 11 matriculation colleges in the country (Ministry of Education Malaysia 2008). From 2007 to 2008, there was an increase of 20.95 per cent in the enrolment of matriculation students, i.e., from 19,297 to 23,340 students (KPM 2008).

Although the matriculation colleges began to admit non-Malay students beginning in 2003, the 10 per cent quota given to the non-Malay students (Abdul Hakim 2006) was not significant enough to offset the ethnic composition of these colleges. The failure of STPM students to secure a place in public universities in their preferred courses has been a long-standing grouse that has not been resolved until now. Indeed, by having two separate examinations and university entry qualifications, the

system of admission to public universities in Malaysia becomes inherently subjective and open to potential abuse or distortion (Pua 2010). Yet some Malays raise the question of the under-representation of Malay students in critical courses in the public institutions of higher learning. They are concerned that only 50 per cent of the Malay students are taking these courses, far below their population figures of 65 per cent. Meanwhile, there are some who are worried that the implementation of a merit-based system may work against the interests of rural Malay students who are disadvantaged as compared to the urban students (*New Straits Times*, 11 November 2006).

Apart from the government, MARA has also been actively involved in providing more access to higher education among the Malays since the 1960s. The role of MARA in this area was facilitated by the establishment of the MARA College of Business and Professional Studies which assumed the name of the MARA Institute of Technology (*Institut Teknologi* MARA, or ITM) in 1967 following the expansion in the number of courses and students (Wong and Ee 1971). ITM initially offered courses in business, accountancy, commerce and secretarial studies and later on, applied sciences, engineering, languages, applied arts, computer sciences and architecture (Lee 2006). With the implementation of preferential policies in favor of the Malays under the aegis of the NEP, MARA was also tasked to play a key role to provide more educational opportunities to the Malays at the levels of certificates and diplomas. To fulfill this task, MARA established ITM branch campuses in almost every state in Malaysia and offered a wide-range of certificate and diploma courses to the Malays (Mok 2000). Consequently, enrolment in ITM increased markedly from 6900 in 1975 to 45,000 in 1996 (Lee 2005).

In 1999, ITM was upgraded to the MARA University of Technology (*Universiti Teknologi* MARA, or UiTM). In 2006, it offered a total of 69 diploma programs (Abdul Hakim 2006). In 2001, it became the largest university in the country with a student population of 79,274 (Lee 2004a). Apart from that, MARA also offered various postsecondary educational, commercial and skills training programs for the Malays by establishing the MARA Business Institute, the MARA Infotech Academy, the MARA Skills Training Institute, the MARA Advance Skills Training Institute and the GiatMARA (Ministry of Education Malaysia 2001). While there were calls for MARA to open up its educational institutions to the non-Malays, the Malay community has been extremely defensive in safeguarding their exclusive rights to these educational institutions.

2.5 Conclusion

Raced-based policies and practices have pervaded the Malaysian education system. This chapter presented three cases of such policies and practices, namely, allocation of development funds, the national school as the school of choice and preferential policies. In a plural society like Malaysia where there are competing ethnic interests, such policies and practices have often invoked strongly felt positions among the different ethnic groups. As far as the allocation of development funds is

concerned, the vernacular schools are discriminated against by the government simply because of their historical legacies. Meanwhile, despite its noble intent to foster ethnic integration among the primary school students, the strengthening of the national school as the school of choice for all races has been questioned by the Chinese educationists. Finally, while there is certainly a need to help the Malays to advance their educational mobility via preferential policies, it is most unfortunate that such a need has not been well received by the non-Malays.

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Chapter 3
Education and Politics in Malaysia

Ong Kian Ming, Saifuddin Abdullah, Meng Yew Tee, and Moses Samuel

Abstract In a heterogeneous country like Malaysia, it is not surprising that educa-
tion policy has often interacted with the politics of race, religion and language. The
nature of these interactions, however, has evolved over time as policymakers, politi-
cians and citizens dealt with the challenges of globalization, a growing economy
and shifting demands of an increasingly complex employment market. This chapter
distils the views of two politicians, one formerly from the ruling Barisan Nasional
(BN) Coalition and the other from the opposition, in order to highlight the contin-
ued influence of race and religion in the politics of education but also the emergence
of other contending forces of influence, including market-based pressures, espe-
cially at the higher education level. Through the various narratives and questions
posed, a dynamic and evolving education policy landscape is revealed. The views of
both politicians show the tensions and contestations between moving away from a
race-based lens of education policy and maintaining a tight control of education
policy that serves the larger political interests in the country.

3.1 Preface

This chapter analyses the politics of education in Malaysia from the perspective of
two politicians from both sides of Malaysia's political divide. Ong Kian Ming writes
as a member of the primary opposition coalition known as *Pakatan Harapan*

Two of the editors of this book—Tee and Samuel—aided in the process of writing this chapter.
The content here was originally narrated and/or written by Kian Ming and Saifuddin. This is their
perspective.

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(PH, or Alliance of Hope; its predecessor was known as *Pakatan Rakyat*, or People's Alliance) and Saifuddin Abdullah as a member of the dominant ruling coalition known as *Barisan Nasional* (BN, or National Front). It is important to note that BN—and its predecessor known as *Perikatan*, or Alliance—has governed Malaysia since its independence from the British in 1957. While in the last phase of the writing of this chapter, Saifuddin left UMNO (United Malays National Organisation, the dominant party in BN) to become the chief secretary of *Pakatan Harapan*.

Kian Ming was elected as a member of the Malaysian Federal Parliament in the 2013 general election. He ran as a member of Democratic Action Party (DAP), one of the three key parties that make up PH. His public engagement with educational issues began in 2005 through the 'Education in Malaysia' blog he co-wrote with another opposition leader. His early formal education took place in Malaysia's public school system. His upper secondary and pre-university schooling was completed in Singapore through the ASEAN Scholarship. On his way to a PhD in political science from Duke University, he also obtained undergraduate and postgraduate degrees in Economics from Cambridge and the London School of Economics.

Saifuddin was elected as Member of Parliament in the 2008 general election, and soon after was appointed as the deputy minister of higher education. He ran as a member of UMNO, the dominant party in BN and Malaysia's political landscape. His early education took place in the public school system, where his parents also served as Islamic religious teachers. He then went on to Malay College Kuala Kangsar, an elite boarding school reserved for the best performing Malay boys in the country. Upon completion, he went on to obtain a degree from the University of Malaya (UM).

Both Kian Ming and Saifuddin are deeply interested in educational issues. Through their lenses, this chapter examines the convergences and contestations in constructing the nexus between politics and education in Malaysia.

3.2 Introduction

In Malaysia, there is an inextricable link between politics and education. This link has taken different forms in relation to the larger political milieu. In the decade after independence in 1957, the milieu was very much focussed on nation building (Chai 1977). In the two decades following the late 1960s, the dominant milieu revolved around meeting the needs of specific ethnic communities in an attempt to redress ethnically based economic imbalances (Brown 2007; Haque 2003; Thomas 1983). From the 1980s onwards, the milieu was driven by the goal of industrialization as the nation attempted to diversify its large agricultural economic-base (Bajunid 2008), although ethnically based discourse often played a significant role (Samuel and Tee 2013; Brown 2007). During this 50-year period after independence, these milieus were largely driven by a political structure in which education in the various states was driven by a federal government through the Ministry of Education.

It was during these formative years that Malaysian politics and education became inextricably linked. In the last decade, the relationship between politics and education has become considerably more complex and multifaceted. We will attempt to unlock some of these complexities in this chapter through the lens described by Thomas (1983). He envisaged the effects of politics on education in terms of:

 (i) *Influence over the support of, and access to, education.* This dimension concerns the question: 'Who receives how much schooling of what type and of what quality?' (Thomas 1983, p.8).

 (ii) *Influence over the content and practice of education.* This dimension concerns the question: 'What is taught, by what methods is it taught, and how is it assessed?'

(iii) *Influence over the latitude of social and political actions of various actors within the education system.* The driving question is: 'To what extent should the school's professional staff members and students be allowed to engage in whatever social and political behaviour they choose?'

To these three dimensions, we added a fourth:

(iv) *Influence of the political economy on education.* This is to underscore the strong role of another key nexus—Malaysia's political economy (Gomez and Jomo 1999), where political patronage can have a major influence on economic activities including the education sector.

It is through these lenses that we will discuss the situation in Malaysia.

Thomas (1983, p.283) also argued that his Malaysian case study illustrates 'how a dominant political cleavage tends to absorb, suppress, subsume, and make irrelevant other potentially political cleavages'. According to Thomas, the cleavage created by the ethnicized politics of education has subordinated the other substantial cleavages such as socio-economic and geographical (e.g. urban and rural) differences.

Kian Ming argues that Thomas's characterization may have had currency in the 1970s, but contemporary Malaysia has been moving towards a post-racial era where other significant forces, and not just racial issues, come into play. The inter-linkages between politics and education policy have become more complex in conjunction with the increasing diversity in education demands on the part of the parents, the increasing number of education providers especially in the private sector and greater competition in the political landscape. Saifuddin, on the other hand, argues that Thomas's conclusion of racial Malaysia is still accurate to a large extent, although there is a need for a more significant move towards a more post-racial narrative.

Through this backdrop, we discuss these four dimensions in light of the following vignettes that capture the nexus between politics and education in contemporary Malaysia.

3.3   Vignette 1: The Evolving Politics of Language and Race in Education

Saifuddin argues that education policies are affected too much by race-based political currents. To elaborate on this further, some background must be given: There are many languages used in Malaysia, and this multilingual landscape is due in large part to the country's ethnic diversity. The Malaysian population of 28 million consists of 67 per cent *Bumiputera* (literally 'princes of the soil'), 25 per cent Chinese and 7 per cent Indians (Department of Statistics, Malaysia 2011). Malays make up an overwhelming majority of *Bumiputeras*, followed by other indigenous groups such as the Ibans and Bidayuhs in Sarawak and the Kadazans, Dusuns and Muruts in Sabah. The linguistic diversity in the country is such that even within these ethnic groups, different vernacular tongues are used. The many dialect groups among the Chinese community such as the Hokkiens, the Hakkas, the Teochews, the Hainanese and the Foochows, just to name a few, would speak their own dialects. The Indian community comprises mostly of Tamil speakers but also has a minority of Telugu, Gujarati, Malayalam and Punjabi speakers. Among the Dayak people in Sarawak, several dialects are spoken by different subgroups (refer to Chap. 8 for a more detailed perspective). Even among the Malay community, regional dialects such as Kelantanese may not be understood by the wider Malay-speaking population. While there are no restrictions on the speaking of these various languages, the dominant language of instruction in publicly funded educational institution, post-independence, has been the national language, which is Bahasa Malaysia or the Malay language.

In the 1970s, the shift to replace English with Malay as the medium of instruction in schools and universities began. By 1983, virtually every public education entity, with the exception of Chinese and Tamil vernacular primary schools (which will be further discussed below), used Malay as the medium of instruction. The missionary schools which had used English as the medium of instruction were converted into national schools, which used Malay as the medium of instruction. Most secondary schools which used Chinese as the medium of instruction were converted into national or national-type schools with Malay as the medium of instruction. The impetus to create a post-colonial identity through education policy was seen as an attempt to create a largely Malay or Malay-speaking identity. At the same time, the education structure under the British was replaced by the highly centralized education system which we continue to see today. In this federal system, the state governments and local councils have almost no power over education policies.

In 2003, Prime Minister Mahathir Mohamad pushed for a major shift back to English as the medium instruction for Science and Mathematics subjects. This policy shift is known by its Malay acronym PPSMI (*Pengajaran dan Pembelajaran Sains dan Matematik Dalam Bahasa Inggeris,* translated as Teaching of Science and Mathematics in English). However, this was reversed some six years after it was implemented by the next deputy prime minister cum education minister, Muhyiddin Yassin. As a follow-up, in 2013, Muhyiddin directed that a pass in English be made compulsory for school leavers by 2016. However, this ruling was deferred by

Muhyiddin's successor in 2015. The proposal to teach Science and Mathematics in English in 2003, by the then prime minister Mahathir Mohamad, illustrates the longevity and relevance of identity politics in language, but at the same time also illustrates some of the new realities and complexities of the relationship between education policy and politics.

Saifuddin argues that many of these policy decisions were made on ethnopolitical grounds. For instance, Mahathir justified PPSMI as being beneficial for the Malays. Likewise when the policy was reversed, members of the powerful UMNO Supreme Council, who were briefed by the director-general of education (the top officer in the education ministry), were most concerned about the impact of the shift away from PPSMI on the Malay community. Saifuddin clearly recalls that the discussions about the educational implications of this policy shift were minimal. In essence, it was seen as an ethnopolitical and not an educational decision.

Saifuddin believes that the main decision drivers for the policy reversal focussed on the impact on the Malay and UMNO agenda. There was a strong belief that PPSMI undermined the position of the Malay language. It was also argued that rural students, especially Malays, would suffer from the policy. More importantly, the continuance of PPSMI may translate into loss of critical votes in the Malay heartland. The Malay heartland parliamentary constituencies are generally seen as safe seats for UMNO, and whose insecurities are often subjected to manipulation and racialized rhetoric for political gains.

Such political expediency, Saifuddin argues, will in the long run be detrimental to the Malays who have to learn to compete in the global economy. But the momentum of racialized rhetoric continues to be present in education-related decisions. In the case of PPSMI, the momentum came from many sources, including seasoned politicians, senior civil servants, academics and literary figures. Even as the deputy minister of higher education and member of the UMNO supreme council then, Saifuddin could offer little resistance despite requests for a more evidence-based approach. Such political expediency is not atypical, according to Saifuddin. It played major roles in many of the policy shifts discussed earlier in this vignette.

The debate on PPSMI also illustrated some of the complexities in the link between education policy and politics. The movement to abolish PPSMI as a policy brought together groups that normally would not see eye to eye. Malay NGOs such as the National Writer's Association (*Gabungan Persatuan Penulis Nasional*, better known as GAPENA) formed a movement to abolish PPSMI (*Gerakan Mansuhkan PPSMI*) together with Chinese educationist group, *Dong Jiao Zong*, in order to champion mother tongue education and to oppose the PPSMI policy. Two opposition parties—*Parti Keadilan Rakyat* (PKR) and *Parti Islam Se-Malaysia* (PAS)— also supported this position in part because of pressure from many of the Malay NGOs. On the other hand, PPSMI was strongly supported by the multiracial Parents Action Group for Education in Malaysia (PAGE), which was supported by many prominent Malay individuals, including a prince from the state of Negeri Sembilan (Malaysian Insider 2011a). The DAP took the position that schools and parents should be allowed to choose whether or not to continue the teaching of Science and Mathematics in English.

Another long-standing language-related issue in the nexus between education policy and politics concerns vernacular schools. More than 90 per cent of the 5.2 million school-going children in Malaysia are enrolled in public schools (Ministry of Education Malaysia 2013). Of the 2.9 million children that go to public primary schools, close to 700,000 go to partially government-funded vernacular schools, i.e., Chinese-medium and Tamil-medium schools, while the large majority go to what is generally referred to as fully government-funded, Malay-medium national schools (Centre for Public Policy Studies 2012). Historically, the vernacular schools are generally quite homogeneous—Malaysians of Chinese descent make up a large majority of the Chinese-medium schools, and Malaysians of Indian or Sri Lankan descent make up a large majority of the Tamil-medium schools. Increasingly, an overwhelming majority of Chinese parents are sending their children to study in Chinese-medium primary schools. What this means is that schools at the primary level are becoming increasingly homogeneous, with the national primary schools predominantly Malay while the Chinese and Tamil schools predominantly Chinese and Indian respectively.

In terms of government funding, national schools are entirely government owned and operated, while most vernacular schools receive government funding for general operations and teachers' training and salaries, while the school buildings and other assets are derived from private contributions.

The vernacular school system has been a major flashpoint for political rhetoric. On one hand, the supporters of vernacular schools cry foul over the imbalance of the funding structure, as well as constant administrative and curricular encroachments into the vernacular system. On the other hand, Malay ultranationalists will argue that there should not be funding at all as there is no room in the country for public funding of non-Malay-medium schools. Worse, the frequently used race-based rhetoric on vernacular schools is often used to gain political mileage by the various race-based parties.

One of the key reasons for the increasing demand for vernacular schools has been linked to their perceived higher quality when compared to national schools. Has politics (including but not exclusively race politics) had a hand in the poor quality of the national schools? Saifuddin argues that it has in very significant ways. The clearest sign of this is the racially driven hirings, promotions and appointments of principals, teachers and staff in the public education system. For example, Saifuddin points out, most public school principals are Malays. Vernacular Chinese-medium schools must have a Chinese principal. Many a controversy have arisen when these conditions are not met. There are disproportionately small numbers of non-Malays in the entire administration of the Malaysian public education system, from the federal ministries down to the schools. If the focus is on quality, Saifuddin argues, should not the main criteria for employment or appointment be based on merit rather than ethnicity or religion?

In contrast to Saifuddin, Kian Ming argues that the trajectory of the political debate on vernacular education has shifted, especially since the economic liberalization of the 1990s. While politicians—especially from UMNO and the occasional representative of a Malay nationalist NGO—would periodically call for the

abolishment of vernacular education, there is no real danger to the continued existence of Chinese and Tamil primary schools on socio-political and constitutional grounds. The contestation, according to Kian Ming, has instead shifted to the local level where residents and local political leaders lobby for more Chinese (and less often, Tamil) primary schools to be built in new high-demand residential areas. Politicians and law-makers often have to manage the tensions between maintaining the number of Chinese and Tamil schools versus the pressures or demands for more Chinese and Tamil schools by the respective communities.

To add to this complexity, a more recent trend had led to more non-Chinese parents wanting to send their children to Chinese primary schools. In 2014, about 15 per cent of the students at Chinese vernacular schools were non-Chinese (Teh 2015). This growing trend has led to some interesting and quite unexpected scenarios from just a decade ago—some Chinese vernacular schools have become more ethnically heterogeneous compared to national schools, and in some vernacular schools, the student population are all Malays (Hoo 2016; Lee 2015; The Star Online 2014).

Embedded within these dynamics, there are also pressures to expand Islamic schools via the federal as well as the state authorities to cater to the Malay Muslim population.

The opposition coalition, according to Kian Ming, has managed to broaden their position to not just advocate for more resources to be given to vernacular education but also to religious education. In this area, there was broad consensus among the parties in the then *Pakatan Rakyat* since DAP could be seen as championing vernacular education, PAS could be seen as championing religious education and PKR could be seen to be championing both.

Another major force, according to Kian Ming, is the east–west divide. The east Malaysian states of Sabah and Sarawak have called for a greater autonomy in the highly centralized Malaysian education system. They have been unhappy with the encroachment of teachers from west Malaysia into Sabah and Sarawak. They have also been unhappy with the lower teacher salaries in their states as a result of lower allowances compared to west Malaysia. East Malaysians have been unhappy with the fewer education options especially at the primary and secondary levels in east Malaysia. There have also been calls to reintroduce English-medium schools, despite the risk of touching politically sensitive nerves linked to the special position of the Malays and the Malay language. The 2015 policy decision by Chief Minister Adenan Satem to recognize the United Examinations Certificate (UEC), an upper secondary qualification from the 60 independent Chinese secondary schools which still exist in Malaysia, is in stark contrast to the position of the federal government, which still refuses to recognize the UEC as an entry qualification to public higher educational institutions. This could be in response to PR's 2013 General Election manifesto, which had pushed to recognize the UEC. This is yet another example of the growing complexity in the political landscape regarding education policy—that a chief minister of a BN-controlled state would adopt a policy that is the opposite of the position held by the BN-controlled federal government.

Kian Ming argues that these signal the beginning of a shift of the Malaysian political narrative on education towards a more post-racial narrative. The next vignette will examine more closely this possibly emerging new narrative.

3.4   Vignette 2: The Rise of Private and Parallel Education Pathways

Kian Ming argues that a major driving force in Malaysia's political–education nexus is market-oriented pressures. For instance, due to economic development objectives as well as major regional financial crises in 1985 and 1997, public policy has faced enormous pressures to increase higher education enrolment in the country. This has led to an expansion of the private education sector as a 'release valve' for those who cannot or do not want to access the public university system. Today, hundreds of private higher educational institutions (PHEIs) in Malaysia are home to about half a million students.

The key forces, Kian Ming argues, were not ethnic politics but market forces. The primary and secondary school system has also seen a similar trajectory. Malaysia's virtually free public education has helped its citizens achieve near-universal basic literacy and numeracy skills. However, the Malaysian education system has not been able to keep up with the demands of the increasingly knowledge-driven world economy. The quality of its education has come under heavy fire in recent years. One gross indicator of the deteriorating quality is reflected by Malaysia's performance in international assessments such as the Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS). In the 2012 PISA, for example, Malaysia ranked 39 out of 44 countries in the problem-solving test for 15-year-olds. Malaysia also ranked in the bottom 25 per cent in the Mathematics and Science tests. Between 1999 and 2012, both the Malaysia's TIMMS and PISA scores have seen a consistent downward trend. This is despite the fact that Malaysia's per student spending on education ranked in the world's top 10 per cent. In response to this situation, more private primary and secondary schools have opened in the last decade. This has allowed more Malaysians to enrol in what were previously international schools that were only open to non-Malaysians. This is another instance of a 'release valve' for parents seeking other options besides national or even vernacular education. In this case, it was market dynamics that played a greater role then racial issues.

In other words, a side effect of Malaysia's struggling education system has been the rise of private education. According to the World Bank (2015), the percentage enrolment in private schools as a percentage of total enrolment (public and private) doubled in Malaysia between 2002 and 2012. The enrolment in private primary schools went from 0.9 per cent to 1.8 per cent, and private secondary schools from 3.5 per cent to 7.7 per cent in that time period. Similar trends can be seen in the higher education sector. In 2013, for example, the enrolment in private higher

educational institutions was already in the mid-40 per cent range as a percentage of total national enrolment (public and private).

Kian Ming maintains that this rise in private education is an example of other more significant forces—in this case, market forces—overshadowing racial politics. The growth of Malaysia's middle class led to a growing demand for better education at all levels. Saifuddin also sees similar trends with Islamic schools. He explains that religious schools in Malaysia, especially the private ones, came about in Malaysia because Islamic education in Malaysian public schools was seen as inadequate by Muslim parents. The influential ABIM (*Angkatan Belia Islam Malaysia*, or Muslim Youth Movement of Malaysia) championed for the revival of a more rigorous Islamic education in the 1970s. They used private and charitable channels to start kindergartens and schools that focussed on Islamization of knowledge. Later on, other private enterprises such as Al Mumin and Al Hidayah added to the momentum. In this regard, Saifuddin and Kian Ming are in agreement, arguing that fulfilling an unmet need led to market-demand solutions and the formation of multiple parallel school systems in Malaysia. This created numerous choices for parents and children.

Ultimately, a more capable and skilled human resource base was needed to meet economic development imperatives. The rapid economic growth experienced by the country in the early 1990s during the period of the Asian Economic Miracle necessitated an upskilling of human capital. Tan (2002) breaks down the global pressures behind the opening up of the private higher education sector into the following components: (i) the effects of trade liberalization that led to the tightening of the labour market, (ii) the opening up of regional markets to multinational corporations which put pressure on Malaysia's own competitiveness, (iii) the establishment of the Multimedia Super Corridor and the resultant demand for skills and services for information and communication technology (ICT)-related jobs and (iv) the need to upgrade human capital in order to ensure national competitiveness in a global economy.

As soon as the necessary legislation was introduced in order to liberalize and regulate the growth of the private higher education sector, the momentum created by this industry proved hard to stop. For example, not only did the growth of this sector decrease the outflow of foreign exchange via Malaysian students going abroad to study, the government later realized that this sector could attract foreign students to study in Malaysia and, in turn, earn valuable foreign exchange.

In addition, this expansion of the private education sector also proved to be a useful 'release valve' to meet demands for education among those who cannot or do not want to access the public system. In the last 20 years, as a result of the liberalization of the private higher education sector, Malaysia has seen the emergence of hundreds of new private higher educational institutions (PHEIs). They, according to Kian Ming, have become powerful lobby groups. PHEIs, for example, have so far been able to resist any quotas for the percentage of foreign students and the percentage of Bumiputera students. Although PHEIs have given in on curriculum matters such as making Malaysian studies compulsory as well as following the requirements

of the Malaysian Quality Agency, they have remained somewhat independent on most academic matters.

This independence is, however, limited. Federal legislations passed by the BN-controlled parliament such as the Universities and University Colleges Act (UUCA) can and have limited freedom of expression. While the UUCA has been amended to allow students to join political parties and to hold positions in political parties, their political activities within the confines of individual campuses are still severely circumscribed. Another law—the Sedition Act 1948—has also been used to muzzle academics. Prominent columnist and law lecturer at University of Malaya (UM), Azmi Sharom, was charged under this law merely for commenting on matters related to a constitutional crisis in the state of Perak in 2009 arising from a change in the state government (Malay Mail Online 2014). While he was acquitted in 2016, it is important to note that other academics as well as students have also been investigated under this law.

Aside from laws limiting freedom of expression, there are other concerns that may seem less conspicuous but can also have adverse effect on education in Malaysia. Saifuddin cautions that even in situations that appear to be market driven, there is substantial politics being played out in the background. Kian Ming concurs. For example, politically connected entities such as Universiti Tunku Abdul Rahman (via BN component party, Malaysian Chinese Association or MCA), LimKokWing University (via connections to a former prime minister) and Nottingham University (via politically connected Boustead Holdings and YTL Corp) serve as significant clues to the nexus of politics and education in Malaysia. More implicitly, PHEIs also recruit senior civil servants and academics from the public universities and civil service to join their ranks of leadership to facilitate relationships with influential politicians and politically connected bureaucrats. Taylor's University, for example, appointed a former director general of the Department of Higher Education as its vice chancellor and president. UCSI University appointed a former public university vice chancellor and minister of education as the chairman of its university council.

Saifuddin also expresses concern with the college loan programme known as PTPTN (the Malay accronym for *Perbadanan Tabung Pendidikan Tinggi Nasional,*translated National Higher Education Fund Corporation) as well as awards of government or government-related scholarships. Through arrangements that look like political patronage, politically connected businessmen can get a licence to operate a PHEI with a virtual guarantee that he will have a minimum of 500 students enrolling through government scholarships and PTPTN loans. Having 500 fee-paying students is often cited as the financial breakeven point for running a PHEI, thus virtually guaranteeing the financial viability of a fledgling college. Invariably, Saifuddin argues, there are still strong racial undertones to these arrangements. Beneficiaries are often Malays affiliated to UMNO or, in some cases, Chinese or Indians affiliated to the other key race-based component parties.

Saifuddin points out that parallel education pathways can and have been introduced and maintained almost entirely on a racial basis. One such example is the MARA system (*Majlis Amanah Rakyat*, or Council of Trust for the People, is a Malaysian government agency formed to aid, train and guide *Bumiputeras*). The

intersection of education and race in terms of education access appears in the policies governing awards of MARA scholarship, as well as entrance into *Maktab Rendah Sains Mara (MRSM)* schools and also MARA university (*Universiti Teknologi MARA*, or UiTM). The Mara Junior Science Colleges or MRSMs are elite government secondary schools, run by MARA, that were formerly reserved for *Bumiputeras* only. But starting in 2004, 10 per cent of spaces in MRSMs were opened up to non-*Bumiputeras* as part of the BN's 2004 general election manifesto. Finally, UiTM, with more than 150,000 students across its many campuses in Malaysia, are 100 per cent reserved for *Bumiputeras*. Calls for places in UiTM to be opened to non-*Bumiputeras* have been met with protests among students as well as university administrators.

While some room has been opened up in terms of access, it is likely that these institutions will continue to be almost exclusively reserved for the *Bumiputera* population. Not only will proposals to open up (more) spaces to non-*Bumiputeras* be met with political pressure and internal resistance, the reality is, Kian Ming notes, that with the availability of so many other secondary and post-secondary education options, most non-*Bumiputeras* are not strongly advocating for entrance into these institutions.

The interface between education, politics, business and race has also taken on more complex arrangements in recent times. For instance, a number of private institutions are owned or controlled by government-linked companies (GLCs). To ensure *Bumiputera* participation in this sector, state-based private equity firm Ekuiti Nasional Bhd (Ekuinas) has taken up stakes in selected private educational institutions under their ILMU group of companies, including Unitar International University, Asia Pacific University (APU), Cosmopoint College, Asia Pacific Institute of Information Technology (APIIT) in Sri Lanka, the Kuala Lumpur Metropolitan University College, Tenby Educare Sdn Bhd and Asia Pacific Schools (Ekuinas n.d.).

3.5   Discussion

The education system in Malaysia has been used as a tool for nation building as well as for partisan political gains. These objectives are often interwoven into each other. At different points in time, partisan politics may take precedence over nation building objectives. The two vignettes above provide a glimpse into this interweaving between education and politics. In Vignette 1, the education-political contestations are presented in relation to the dominance of racial politics and other emerging competing forces. In Vignette 2, the contestations extend into a more multifarious mix between education and politics, economics as well as business. In presenting these vignettes, we have drawn from our experiences and observations as politicians to provide insights into the contestations, tensions and constructions of the nexus between politics and education in Malaysia.

The vignettes will be discussed through Thomas's lens. Thomas (1983) envisaged the effects of politics on education in terms of (i) influence over the support of, and access to, education; (ii) influence over the content and practice of education and (iii) influence over the latitude of social and political actions of various actors within the education system. To these three dimensions, we added a fourth: (iv) influence of the political economy (Gomez and Jomo 1999) on education.

3.5.1 Politics Related to the Support of and Access to Education

From a macro standpoint, access to universal primary education, one of the Millennium Development Goals (MDGs), has already been achieved by Malaysia. Access to secondary and tertiary education has also increased dramatically in the last two decades. However, on a closer examination, issues of access to education are underscored by two powerful political forces: (i) economic as well as geographical inequalities and (ii) race.

The politics of race has long dominated Malaysia's political landscape. From the beginning of its independence, race-based political parties have dominated the government and the overall political scene. These race-based parties have rallied support through education policies that cater to specific race-based constituencies. For example, Chinese vernacular schools, as discussed in Vignette 1, have been used as a convenient flashpoint by Chinese-based parties as well as Malay-based parties. This often happens when the political parties want to make their presence felt. Malay-based parties and NGOs, for instance, would call for the closure of Chinese vernacular schools in the name of forging greater national unity. The Chinese-based MCA and Malay-based UMNO—both key members of the *Barisan National* alliance, which has essentially ruled the country since independence—will then use the situation to project themselves as protectors of their respective communities.

Repeated rhetoric and political actions such as this over the last several decades have created multiple school subsystems delineated by race and religion. The *Bumiputeras*, for example, have a special secondary and tertiary education system sponsored by MARA. The Chinese have created their own subsystems such as private independent secondary schools and private higher educational institutions. The other ethnic groups such as Indians and the native groups in Sarawak have also called for yet other subsystems. Religious communities have also created other subsystems. One of many consequences of the multiple school systems—a direct outcome of politics of race—is that the Malay child exiting secondary education would have access to very different pathways than the non-Malay child. As discussed in the vignettes, this situation has also affected other structural dimensions such as hiring practices, budget allocations, awards of loans and scholarships, as well as ownership of educational institutions.

While these patterns reflect the historical development of Malaysia's education system, Kian Ming diverges from Saifuddin's views in arguing that economic and geographical forces, rather than merely race politics, will affect the direction of education development. He argues that the rural–urban as well as the east–west Malaysia divide will continue to see increasing demands on policymakers. The Sarawak state chief minister, for example, has recently asked for the re-establishment of English-medium public schools in the midst of important state-level elections—a clear departure from the national narrative and policy. This will significantly affect the majority of the population in the east Malaysian state of Sarawak, which is largely rural and relatively poor and continues to struggle to gain access to high-quality basic education. Failure to address issues of access may have severe political consequences for advancing the integration between east and west Malaysia.

3.5.2 Politics of Content and Practice of Education

While the vignettes do not specifically address the politics of content and practice, issues do arise regularly in this area. It should not be surprising that the syllabus of certain subjects which are taught in the national education system proves to be politically contentious especially for subjects such as history. The nation building agenda, which includes the creation of a common narrative for a national identity, plays a strong influencing role among those who are in charge of creating the national syllabus. However, Malaysia's history textbooks have been criticized for being biased and not sufficiently inclusive or even accurate. One common criticism that is often brought up is the downplaying of the role played by Chinese businessman Yap Ah Loy in the history of Kuala Lumpur (Malhi 2015). More recently, the chief minister of Sarawak, Adenan Satem, called for a review of the country's history textbooks to include the contributions of east Malaysians, specifically Sabahans and Sarawakians (Davidson 2015). At the time of writing, there was no indication that the 14-person panel that was formed in 2011 to review the history textbooks has publicly announced its recommendations (Malaysian Insider 2011b).

The choice of text for a literature syllabus can also prove to be politically controversial. In 2011, *Interlok*, a Malay novel written by national laureate Abdullah Hussein, was selected as one of the reading materials for Malay literature at Form Five level. It proved to be contentious for the usage of derogatory language to depict the Indian community. After much public pressure, the novel was withdrawn from the Malay literature syllabus (Borneo Post 2010).

The Ministry of Education's influence on education syllabi extends beyond the pre-tertiary level. It can and does exert its influence on private higher educational institutions through making subjects such as Malaysian Studies (all Malaysian students), Moral Studies (non-Muslims only) and Islamic Studies (Muslims only) compulsory. In public universities, Islamic and Asian Civilization Studies (*Tamadun Islam dan Tamadun Asia or TITAS*) is a compulsory subject for all undergraduates. Once such courses are introduced, they tend to have some staying power even

though their efficacy may be in question. After all, which politician or civil servant would want to advocate for the removal of a subject with as noble of intentions as moral studies?

These episodes—involving the role of Yap Ah Loy in Malaysian history, the contributions of east Malaysians in the national narrative, the contentious issues of racialized school literature texts and the introduction of compulsory religion-related courses—highlight the underlying currents in the politics surrounding the content of education. They also underscore the ethno-religio-political forces at work in the culture wars influencing educational decision making.

3.5.3   Social and Political Control Within the Education System

The ministry of education exercises strict control over the activities of students as well as lecturers in the public universities especially when it comes to political activism. Weiss (2011, p. 226) describes the process of 'intellectual containment' in public universities as 'part of a broad program of depoliticization' of the student body. In the Malaysian context, this is played out by attempting to silence student activism to remove a potential source of threat against the ruling regime, often by using university rules and regulations. University students have been penalized or suspended for demonstrating or supporting opposition politicians or causes.

Likewise, academics and teachers have been subject to strict social and political control. Teachers, for example, can be penalized for expressing views that are contrary to the official position. Within the last year, a teacher was initially transferred and then later removed for resisting the implementation of school-based assessment policies (Malaysian Insider 2015). As discussed in the second vignette, faculty members are subject to laws that can be used to silence dissent. Recently, a number of academics were investigated or charged under the Sedition Act for stating their expert opinions in public.

As a consequence, academic freedom is stifled. But more importantly, for every case that is filed or brought before the courts, there are many more who self-censor and thus undermine their roles as academics or educators in informing the public discourse.

At the school level, Saifuddin is also concerned about other common but tacit practices. For example, when a new school is set up, some of the teachers assigned to the school are also invariably UMNO supporters who will be instrumental in setting the area UMNO branch office. Such expediencies underscore an education system that can and has been used as a political tool.

3.5.4 The Political Economy and Education

The last 20 years have witnessed the rise of the private education sector, involving the establishment of private universities and private schools. On one hand, these developments appear to be market driven, but on the other hand, there is much evidence that suggests significant political forces at play.

As discussed in the second vignette, the private universities and university colleges have become an economic force to be reckoned with, especially through their collective strength in groupings such as the Malaysia Association of Private Colleges and Universities (MAPCU) and the National Association of Private Educational Institutions (NAPEI). Some of the private universities have appointed politically connected individuals to maintain good ties with the government bureaucracy.

While this is an instance of educational institutions seeking political connections to ease the running of their enterprise, there are also strong indications that the opposite is true, i.e., political parties, entities affiliated to political parties or government-linked companies have been involved in establishing or owning of private universities and schools. The government-linked private equity firm Ekuinas and MCA's University Tunku Abdul Rahman discussed in the second vignette are such examples.

Another more established model that depicts the education–politics–economics nexus is MARA. As discussed earlier, MARA is a Malaysian government agency formed in 1966 to educate and support Bumiputera in the areas of business and industry. The MARA system operates several junior colleges, *Universiti Kuala Lumpur* and the largest university in Malaysia, *Universiti Teknologi MARA*. The MARA system has close ties to UMNO and often features in UMNO political rhetoric in highlighting their role in protecting the well-being of the Malay community.

These different arrangements illustrate the variation of the political economy of Malaysia's education landscape. This intersection underscores the complex structures that characterize the education sector in Malaysia.

3.6 Conclusion: Post-racial Malaysia?

Saifuddin argues that Malaysia, in its present state, still suffers from politics of race. The politics of race is so embedded and so ingrained that some people do not see it even when it is clearly present. There have been many situations where key actors recognize its presence, but do not see any problems with it. And yet there are others who see it and find it problematic, but choose to just cope with it or tolerate it.

Saifuddin further argues that when the federal constitution was written, the writers were clearly sensitive—through a process of co-conciliation and compromise—to the issue of ethnicity. It was what was needed at the time, but Malaysia's education system should have played a greater role in reducing the overemphasis on ethnicity over the last 50 years. If this had happened, Saifuddin surmises, perhaps Article 153

of the Federal Constitution would have been reviewed by now. Article 153 states that the King will 'safeguard the special position of the Malays and natives of any of the States of Sabah and Sarawak and the legitimate interests of other communities in accordance with the provisions of this Article'. Saifuddin asserts that the original target was to remove this article after 50 years of independence, but this did not take place because Malaysia continues to be trapped in the politics of race.

As such, Saifuddin argues that ethnicity is still very much ingrained in present laws, policies and programmes that are relevant to Malaysia's education landscape. For example, Article 152 in the Federal Constitution guarantees the status of Malay as the national and official language. And this article is often used by certain influential stakeholders in debates on medium of instruction policy in the education system. In addition, Saifuddin points out that every minister of education since independence has been a Malay. Furthermore, there are scholarships, schools and universities set up almost entirely for *Bumiputera*s. More implicitly, public school and university leaders tend to be Malay. In fact, every public university leader—the vice chancellor—is a Malay. The last public university vice chancellor who was not a Malay was a British citizen, and that was at the University of Malaya in 1968. No public universities have had a non-Malay Malaysian as the vice chancellor. Most deans and department heads are also Malay. On the other hand, a number of leaders in larger private universities are almost always non-Malays. This dichotomy underscores the nexus between race, politics and education.

The unbroken rule of UMNO-led governments since Malaysia's independence has led to various policy and economic vehicles to legitimize race-based policies (Milner et al. 2014). To break this racial narrative, Saifuddin argues that education has a significant role to play. But this can only be done if this nexus is broken and in its place a system based on merit and socio-economic needs is installed along the lines suggested by Kamal Salih (2014). Such a system would in the long run address issues of equity (e.g. access to quality education) without compromising the needs of various ethnic communities in Malaysia.

Kian Ming argues, however, that the reality of Malaysia's politics in relation with education is much more nuanced. These realities are not merely governed by racial and political motivations—although they do play a stronger role in some aspects of education policy than others—but also by economic and social drivers. In his view, these are more constructive lenses through which education in Malaysia may be viewed. Issues such as the urban–rural inequalities, the east–west Malaysia divide as well as socio-economic disparities are more pressing concerns that are often masked if viewed purely through the lens of racial politics. Communities in poorer rural Malaysia, including large swathes of east Malaysia, have been left behind. Income inequalities have increased drastically in the last decade. Options and access to high-quality education are limited. Opportunities for social mobility through education have been marred by the decline in the quality of the mainstream, national education system. Politicians and policymakers are under increasing pressure to address these inequalities.

However, as Saifuddin and Kian Ming have pointed out, political expediency can often get in the way of sound, long-term education policymaking as well as

operational decisions. The recent reversal of a required pass in English for school leavers is one such example. Other examples include the reversals of the PPSMI policy and the watering down of school-based assessment policy. Saifuddin's account of teachers assigned to setting up a new school in tandem with the local branch of a political party further illustrates the use of the education system for narrow political gains.

This chapter has presented an overview of the interface between politics and education in Malaysia from two vantage points. Saifuddin continues to be deeply concerned about the stranglehold of race-based politics on educational decision making. Kian Ming, on the other hand, argues that Malaysia has begun to move beyond race-based politics as economic needs take precedence. The two views taken together suggest the convergences and contestations that are being played out in Malaysian education. Kian Ming's view represents a political movement that wants to move towards a post-racial Malaysia by shifting the discourse to focus on more substantive imperatives such as economic and social well-being. While Saifuddin equally aspires to see a post-racial Malaysia, he also holds that for this to happen, the hegemonic and deeply ingrained practices of race-based politics must first be dismantled.

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Chapter 4
Development of Higher Education in Malaysia: Issues and Challenges

Lorraine Pe Symaco and Chang Da Wan

Abstract This chapter explores six decades of development of the higher education sector in Malaysia. The exploration begins by describing the context of higher education through a historical lens from the early establishments of universities in the First Malaysia Plan to the present. Furthermore, the changing roles and functions of universities across the decades were also examined to provide a more comprehensive understanding of the context. The chapter, then, focuses on the development of universities and higher education institutions in the public sector as well as the private sector, elaborating on the challenges and issues specific to each of these sectors. The last section of the chapter discusses selected issues of higher education in Malaysia, notably the changing state–university relationship, internationalisation of higher education services and the need for an inclusive higher education sector.

4.1 Introduction

The increasing role of higher education (HE) in development has been documented in literature where training in higher education institutions (HEIs) is expected to increase the skills and knowledge base of the population as relevant to the needs of the modern society. Literature is replete with studies that document the role of HE in overall advancement of countries, alongside its assumed 'third role' in providing broader social development through knowledge transfers to society (Brock 2012; Symaco 2013; Smith 2014). In Malaysia, similar development strategies document the functions of HE for advancement. From the First Malaysia Plan (1966–1970)

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which defines the role of education broadly for national development, where it advocates for an education system that is geared towards meeting the development needs of the country – the plan also emphasised the requisite to ensure that the education system corresponds to and coordinates with the manpower needs of Malaysia. More recent policy initiatives such as the Malaysia Education Blueprint, Higher Education (MEHEB) (2015–2035) similarly underscore the task of the HE sector in development. The Blueprint, launched in 2015 focuses on the central role of the HE sector that will help propel Malaysia as a developed nation, along with the ideal of establishing it as an international education hub. But despite possibly missing the *Vision 2020* of the country becoming a fully developed nation by year 2020, the increasing internationalisation of services in the broader higher education landscape has positioned government policy initiatives to assure a competitive Malaysian higher education system. This chapter will discuss the development of the HE sector of Malaysia along with relevant issues facing the sector.

4.2   National Higher Education Context

Tracing the development of higher education in Malaysia from earlier Malaysia Plans gives a clear distinction of the role of this sector in government policies for development. Various initiatives were highlighted in the First Malaysia Plan with regards to HE development. In 1962, a Higher Education Planning Committee was formed to forecast the manpower needs of the country for the next 20 years and to plan 'educational facilities need to meet this demand' (Malaysia 1966, p. 164). The focus of the country then in producing the needed manpower for economic development has also resulted in the establishment of a Manpower Planning Section at the Economic Planning Unit (EPU). It was also during this period (i.e. 1965) when a manpower survey was made to complement the objectives of the Higher Education Planning Committee. Rapid development was also organised at the University of Malaya (UM) between the years 1960 and 1965 through the establishment of various faculties and extensions to already existing ones. Provision of better teaching and research facilities were also enlisted to the university in line with the nation's objective to produce relevant and improved human resource for economic development. Enhancement and extensions of teacher training programmes were also given priority in the First Malaysia Plan to better respond to the new comprehensive education system in place.

The purpose of universities in Malaysia has since evolved over the last six decades. In the days of the University of Malaya being the sole university in the country in the 1950s and 1960s, it was an institution tasked to produce civil servants and trained professionals to manage and administer the newly independent nation. However, with the emergence of the New Economic Policy (NEP) in 1971 alongside the introduction of Universities and University Colleges Act (UUCA) in 1971 and the establishment of several other public universities in the early 1970s, the purpose of universities has shifted to include the role of nation-building on top of

producing civil servants and trained professionals. The nation-building role has been exemplified by addressing the ethnic imbalance that claimed to be the reason leading to the riot of 1969 and the subsequent NEP. This purpose remained with the universities throughout the 1970s and 1980s.

In the 1990s, due to the economic situation and forces of globalisation in higher education around the world, universities began to shift once again to incorporate the economic impetus. As a way to reduce reliance on the State, five public universities were corporatised in the mid-1990s. Yet the more significant development in this period is the introduction of the Private Higher Education Institutions Act (PHEIA) in 1996, which paved the way in recognising private universities and colleges as part of the Malaysian higher education system. The development of private institutions as well as the corporatisation of public universities underlined the shift in the purpose of universities towards having an 'economic' role with a modern administrative and governance structure. The National Council on Higher Education was also established in 1996 to, among others, 'plan, formulate and determine national policies and strategies for the development of higher education' (Malaysia 1996, p. 9). For the first time, both the private and public higher education sectors were brought to the same forum or platform to deliberate on policies and strategies. Driven further by economic impetus, technical university colleges were upgraded to university status to meet the nation's aspiration for more graduates in the technical and engineering field.

The significance of higher education has also instituted structural reforms through the introduction of the Ministry of Higher Education (MOHE) in 2004. Successively, the National Accreditation Board was also established to ensure quality monitoring of courses offered in various HEIs throughout the country (later to be replaced by the Malaysian Qualifications Agency in 2007). However in 2013, a move was made to merge the Ministry of Education (MOE) and the MOHE, but only to re-establish the MOHE again in 2015. The *Pelan Strategik Pengajian Tinggi Negara* (PSPTN), or otherwise known as the National Higher Education Strategic Plan, launched in 2007 also emphasises the focus given to the HE sector by the government in line with its goal to achieve a developed nation status by year 2020. Similar to succeeding Malaysia Plans, this Plan has accentuated the function of HE in advancement, though the shifting focus of the sector from essential human resource capital formation for basic economic development, to a more nuanced stance on internationalisation and the ambition to make Malaysia a regional/international education hub in recent proposals is revealed:

> [T]he ministry has introduced various policies to strengthen the national higher education to ensure the existence of a conducive ecosystem, which leads to knowledge excellence. This is in tandem with the government's effort to make Malaysia the regional hub for higher education, as well as the main choice for international students and intellects by 2020. (MOHE 2011, p. 6)

4.3 Public Higher Education

Public higher education in Malaysia has since expanded since the establishment of its first public university in 1962, and the enactment of the UUCA. Currently, there are 20 public HEIs throughout the country, five of which are considered research universities (RUs), namely, the University of Malaya, *Universiti Kebangsaan Malaysia* (UKM), *Universiti Sains Malaysia, Universiti Putra Malaysia* and the *Universiti Tecknologi Malaysia*. The MOHE further categorises public HEIs in the country as focussed universities and comprehensive universities. The former are HEIs concentrating on specific fields of study as relating to its establishment (e.g. the Sultan Idris University of Education for teacher education) while the latter offers a variety of courses and programmes to its students (MOE n.d.). The National Higher Education Strategic Plan has also emphasised the need for public universities to focus on research and development (R&D) for 'outcome-based innovation and commercialisation'; the Plan highlights that public HEIs must have a strong 'R&D roadmap and take on more rigorous efforts in ensuring the existence and management of a research-innovation-commercialisation chain value' (MOHE 2011, p. 7). This focus on research and innovation has resulted in a dramatic increase in research articles produced by the HE sector overall (between 2007 and 2012), and the highest increase apparently in the world (i.e. threefold), of which 70% of such output is attributed to the five RUs. The intensified role of public HEIs in industry has also amounted to an increase in generated revenues (RM1.25 billion) during the same period for consultancy and research services (MOE 2015). The Ministry has also created the High Impact Research (HIR) Programme at the University of Malaya in hopes of developing the university as one of the best research universities globally. For 2011–2013, the Ministry has allotted 7.9 percent of the research and development budget of RM3,072 million for the HIR.

One of the critical agendas set out in the National Higher Education Strategic Plan is the incorporation of the MyBrain15 programme which was established to 'serve as a platform for the development of a critical mass of highly educated graduates eminent at international levels through their creation and innovation of products and services' (MOHE 2011, p. 85) This programme lies in accord with the aspiration to enhance the R&D capability of the country, where it expects to produce a sufficient number of PhD graduates that will help propel this goal. It aims to have 60,000 Malaysians to have a PhD qualification (or its equivalent) by year 2023 and, inherently through this, upgrade the quality of teaching and research in public HEIs (MOHE 2011). Between years 2007 and 2010, close to 10,000 academic staff from public HEIs were sponsored to pursue postgraduate programmes under the MyBrain15 scheme (MOHE 2011). Additionally, the initiative to increase the number of lecturers in public universities with PhD qualifications has also resulted in the support by the government of close to 10,000 postgraduate students under SLAB/SLAI scholarship programme (MOHE 2011). On a broader scale, the Accelerated Programme for Excellence (APEX) also aims to empower higher learning within public HEIs and, in 2008, tasked the Universiti Sains Malaysia (USM) to implement

the APEX programme. The APEX initiative aims to drive USM as an internationally renowned university that 'adopts the concept of sustainability', a concept which then would be diffused and adopted by other HEIs. In 2010, an alliance was formed between 14 public HEIs in relation to the said programme (MOHE 2011, p. 91).

Despite the significant budget cut in public HEIs resources in 2015, the HE sector continues to be one of the main priorities of the government, as evidenced from the budget allocated to the sector. A recorded 13 percent increase per annum in total HE expenditure was seen between years 2004 and 2014 (from RM 4.3 to 15.1 billion). Nonetheless, financial sustainability is one of the main thrusts in the MEBHE which affect public HEIs through the push for less government resources dependency. To diversify resource allocation, some proposals brought forth in the blueprint include, among others: (a) improving the National Higher Education Fund Corporation (PTPTN) by connecting access to student loans with the performance standards of respective HEIs and (b) improving the funding formulae for public HEIs by focusing government investment in priority areas, and introducing performance-linked and per-student funding. Additionally, 'institutionalised performance contracts' which will create a 3 + 2 year funding commitment will also be adopted (MOE 2015, p. E-14; 5–9).

Increasing autonomy among public HEIs was also pushed through the establishment in 2012 of the University Good Governance Index (UGGI) and the Code of University Good Governance (CUGG). Both the UGGI and CUGG aim to assess the readiness of public universities for autonomy. As of 2014, 12 public HEIs have been granted more autonomy over governance, procurement processes and course offerings, among others (MOE 2015). This was also reflected in the earlier National Higher Education Strategic Plan where greater governance was pushed for public HEIs towards a more 'autonomous system of governance that includes the governance of finance and wealth generation, human resources and academic administration' (MOHE 2011, p. 19). Additionally, in view of promoting greater autonomy, the Higher Education Leadership Academy (AKEPT) was established in 2008 to develop and enrich leadership in public HEIs through the Academy's continuous professional development programme.

4.4 Private Higher Education

The introduction of PHEIA in 1996 marked the beginning of private higher education in Malaysia and transformed the country's higher education into a dual system in terms of the types of institutions and ways in which they are governed and funded. Although private HEIs have existed in the country prior to PHEIA, these institutions were not recognised but provided an avenue for Malaysian students to study for a year or two in the country before completing the remaining years in foreign partner universities and receiving a foreign certificate (Tan 2002). This practice was

innovatively and uniquely Malaysian that led to the current arrangements of twinning, franchise and double/joint degree programmes.

The establishment of MOHE in 2004 has was a crucial impact in the development of private HE in Malaysia. One of these impacts was making the 'dual' system a permanent feature, especially with the amendments to PHEIA in 2009, whereby the amendments further regulate the private higher education sector and did not introduce any measures to facilitate greater interaction between public and private institutions (Wan et al. 2015). Importantly, the different systems continue to be governed under different legislations, notably the PHEIA for private institutions and UUCA for public universities, and the lack of a consolidated legislation reaffirmed the division between these two sectors (Zainal et al. 2013). However, the establishment of MOHE and the formulation of the goal of turning Malaysia into an international hub of higher education excellence strengthened the importance of private HEIs, resulting in the growth of the Malaysian HE system. This has been followed by various policies and initiatives including establishing the Malaysian Qualification Agency to ensure quality and the rebranding of Education Malaysia Global Services (EMGS). The EMGS serves as the centralised one-stop centre for visa applications to study in Malaysia, where 65 percent of the international students were enrolled in private institutions in 2013.

The dual system of public and private higher education in Malaysia has both the competing and complementary elements between these two sectors (Wan 2007; Wan et al. 2015). On the one hand, private institutions complement the public universities in providing access opportunities for more Malaysian students to pursue HE. Private institutions also complement public universities by focusing on programmes that have stronger market demand, such as business and administration, medicine, tourism and hospitality, information communications and technology (ICT), education and engineering. In turn, by taking care of the high demand in these programmes, public HEIs can distribute its allocation into important programmes with lesser demand such as science and mathematics, sports, environmental protection, history and philosophy, social sciences, agriculture, fishery, forestry and veterinary sciences.

However, on the other hand, private HEIs have also found themselves to be competing with the pool of talents in terms of students and academics. Increasingly, private institutions have become a more popular choice as compared to public universities due to the fact that the medium of instruction in the former is in English and with less rigorous and stringent admission criteria and competition for places in the latter (Aida Suraya et al. 2015). Furthermore, due to the profit-driven nature of private institutions that are less likely to invest in the training of academics, there has been a culture of 'staff pinching' of academics from public universities, and this has created some forms of competition between private institutions and public universities (Muhamad et al. 2006; Wan et al. 2015).

Although emergence of private HEIs has increased access to higher education, this increase has not been accompanied by the widening of equity in two ways. First, the fees of programmes in private institutions are significantly higher to the students than in public universities, as the latter are heavily subsided by the State.

Table 4.1 Cost of undergraduate programmes for Malaysians (in RM for the entire programme)

Programme	Public university	Non-profit private university	For-profit private university	International branch campus
Management/Business Administration (3-year programme)	4000	38,000	65,000–81,000	100,000
Communications (3-year programme)	4000	38,000	60,000–72,000	102,000
Electrical/Electronic Engineering (4-year programme)	6300	45,000	80,000	170,000
Computer Science (3-year programme)	4700	38,000	60,000–67,000	108,000
Biotechnology (3-year programme)	4700	42,000	71,000–88,000	125,000

Source: Wan et al. (2015)

For instance, a three-year course in public universities typically ranged between RM4,000 and RM4,700,[1] and a four-year engineering course is about RM 6300. Conversely, the cost of a similar programme in non-profit private universities is about tenfold, in for-profit private universities about 20-fold, and in international branch campuses about 25-fold (see Table 4.1).

Second, although Malaysian students in private institutions are entitled to the national student loan fund (also known as PTPTN), the significantly higher costs of study in private institutions have contributed to a larger loan and debt which students incurred. For instance in 2010, while only 30% of the loan recipients were from students enrolled in private HEIs, the loan given amounted to 45% of the total given for that year (Russayani 2013). Interestingly, the cumulative amount of loans extended to students has increased at an average of 27% for private institutions as compared to only 6% for students in public universities. Hence, although PTPTN may have contributed to widening inequity in higher education, it has also been the major contributor that sustained the development of private higher education institutions. This, therefore, makes the sustainability of PTPTN closely related to the sustainability and growth of private HEIs in Malaysia.

The private HE landscape of the country also showcases a significant number of twinning and joint programmes through the various HEIs, along with the presence of offshore campuses. Such routes continue to be an alternative to students wanting to gain foreign qualifications in a more economical value. The emphasis to promote Malaysia as an international education hub has also resulted to increasing this scheme and attracting other foreign universities to set up branch campuses in the country. There are nine branch campuses located in Malaysia as of 2016, while the development of the EduCity in Iskandar in the southern part of the country anticipates mapping Malaysia as a major player in education delivery and provision. The EduCity houses the Newcastle University Medicine Malaysia, University of Southampton Malaysia, University of Reading Malaysia, among others. In addition

to Western universities, Xiamen University (China) has also set up a foreign branch campus in the country. This is also the first overseas campus to be permitted by the Chinese government to be established by a Chinese university.

4.5 Selected Issues and Challenges in the HE Sector

The increasing influence and function for development of the HE sector in Malaysia is evinced through the growth of student enrolment in the sector. From a mere 323 students enrolled in 1959 at the inception of the autonomous campus of University of Malaya in Kuala Lumpur (Selvaratnam 1985), the latest figure (for 2013) showed that more than 500,000 students are enrolled in public universities, 50,000 in polytechnics and community colleges and 480,000 in private HEIs (MOE, 2014). The gross enrolment ratio for higher education had increased from 4% in 1980 to 7% in 1990, 25% in 2000 and 37% in 2010 (UIS, 2014). And since the inception of the MOHE in 2004, higher education enrolment has seen over a 70 percent increase over the last decade.

Proliferation of HEIs is also documented – from the only autonomous campus in Malaya in 1959, the second public university was built in Penang in 1969, and three others between 1970 and 1975. There are now existing 20 public HEIs, where two of the public universities are also Islamic universities. In addition, there are 30 polytechnics and 80 community colleges which are public and under the purview of MOHE. In terms of private HEIs, there are 53 universities, 9 branch campuses of foreign universities, 26 university colleges and more than 350 colleges (MOE 2014).

In line with such expansion, the government has shifted the focus on the HE sector from a mere technical human resource development to a proposed major player in the region in terms of research and innovation outputs and internationalisation feature offerings. Evidently, the government envisions its HEIs to be major players in the broader international community. The sections below cover some of the issues relevant to the Malaysian HE sector such as the changing state–university relationship, the increasing internationalisation of HE services and the promotion of a more inclusive HE sector.

4.5.1 Changing State–University Relationship

The state–university relationship in Malaysia has been an interesting aspect of the HE system. Prior to the formation of Malaysia, University of Malaya was the sole university in the country when the autonomous campuses in Kuala Lumpur and Singapore became independent universities in Malaya and Singapore. As a new country, the focus of the State in terms of education was mainly on primary education and to some extent secondary education. University of Malaya, despite

enjoying full financial support from the State, was a fully autonomous institution without much State interference (Selvaratnam 1985; Morshidi and Wan in press).

The State only began to take an interest in higher education with the establishment of the Higher Education Planning Committee in 1967. As mentioned earlier, this committee was tasked to review the existing higher education arrangements in the country and to make recommendations for the future development of the country (see Malaysia 1967). Henceforth, the committee made five major recommendations, which include the need for more universities and to expand facilities, specifically in critical areas such as technology and agriculture, as well as more courses to be offered using Malay as the medium of instruction; this became the impetus for the establishment of four other public universities between the period of 1969 and 1975.

The riot of 1969 not only changed the course of Malaysian history, but importantly, also triggered a drastic change in the state–university relationship in Malaysia. The NEP was introduced, as a response to the monumental racial riot, which sought to eradicate poverty and restructure society by redressing the economic imbalances among the ethnic groups (Milne and Mauzy 1978). Thus, a 55:45 quota of *bumiputera* (translated as 'sons of the soil', referring to the Malay race and other indigenous group in Sabah and Sarawak) and non-*bumiputera* was implemented in every programme offered by public universities, and in order for this policy to be carried out, admission of students became centralised in the Ministry of Education. This marked a direct intervention of the State into the affairs of universities.

The University Colleges Act (UUCA) in 1971, an aftermath of the racial riot, has since changed the landscape of higher education in Malaysia and its state–university relationship. This legislation was intended to govern the higher education sector during an era with some political instability and, hence, was highly restrictive on the universities, leading to the erosion of academic freedom and refrainment from campus politics and student activism (Morshidi and Sarjit 2010). The legislation also effectively put public universities as part of the civil service and academics became civil servants having to adhere to bureaucratic rules and regulations (Morshidi 2010).

The state–university relationship took another turn in the mid-1990s. Beginning in the late-1980s, the Malaysian economy was relatively weak, and the increased demand for HE led to additional financial burden on the country. The increased demand was due to the weak economy and unfavourable exchange rate that hindered many Malaysian students from furthering their studies abroad. This period also coincided with the emergence of neoliberal ideology leading to privatisation of public utilities and national industries, as well as drastic reforms in the HE systems of the UK and Australia, where universities adopted corporate managerialism and became more entrepreneurial by charging tuition fees. Thus, two significant events took place in Malaysian HE sector, where public HEIs were corporatised (mainly in terms of governance) (see Lee 2004) and private HEIs were recognised through the introduction of the PHEIA in 1996. The state–university relationship was diverted into public and private sectors, whereby with the public HEIs the State remained a 'tight controller', and with the private HEIs the State became a 'regulator'.

In the aspiration to transform itself from being a tight controller to a facilitator, the State has gradually granted public universities some degree of autonomy, which, in theory, translates to institutional, finance, human resources and academic autonomy. While the State, through MOHE, sought to recognise and grant universities with some degree of autonomy, the public universities, as federal statutory bodies (FSB), can only operate within the wider regulatory framework of the civil service, especially in terms of financial and human resource procedures. The lack of structural reform in the wider regulatory framework involving public HEIs suggests some degree of limitations to the implementation of the autonomous status granted (Fauziah and Ng 2015; Wan and Abdul 2015).

4.5.2   Internationalisation of HE Services

Internationalisation of the HE sector in Malaysia can be categorised to cover two broad aspects: (a) the government's push for a more dynamic HE sector through, among others, increased international students and programme offering and (b) the greater focus on research, development and innovation practices as relevant to calls of the knowledge-based society.

The government's Economic Transformational Programme (ETP) lists the education sector as being one of the 12 National Key Economic Areas (NKEAs), where, alongside this, the expansion of the HE sector is also demonstrated. Establishing the Malaysian higher education brand has been a priority in national development plans in order for it to maintain its position as one of the top educational choices for international students globally. Improving student experience alongside branding the HE sector as economical and of good quality have been pushed in the HE blueprint. Attracting new markets (e.g. Australia, Europe and USA) is also envisioned to promote a wider student base, since the current market focuses on the Association of Southeast Asian Nations (ASEAN) and South-South cooperation.

The establishment of the ASEAN Economic Community (AEC) in 2015 has also elicited response from the government to ensure that their graduates are able to perform and integrate in this regional bloc initiative where the free flow of services, capital and skilled labour, among others, are intended. The HE sector's strong programme offerings characterised by twinning and joint programmes and some offshore campuses also makes Malaysia an ideal destination, where an increase in international students intake in the country is recorded from 45,000 in 2007 to nearly 100,000 in 2014. The government also targets a 200,000 enrolment by year 2020 and 250,000 by 2025. Malaysian HEIs have also seen an increase in international academic staff from 2300 in 2007 to 9000 in 2014, most of which are employed in private institutions. (MOE 2015). Moreover, the government has introduced six critical objectives in HE internationalisation: student mobility, staff mobility, academic programmes, research and development, governance and autonomy, and social integration and community engagement (MOE 2015, p. 8–2). The country is also host to nine international branch campuses, while the development

of the EduCity in Iskandar can further promote an increase in international students, staffs and offshore campuses nationally.

The functions of research, innovation and development on the one hand have played a more prominent factor in HE development in Malaysia. The role of human capital and innovations are highlighted in the move towards a knowledge-based economy, where 'the increasing formation and production of both theoretical and practical knowledge through creative research, technological diffusion and innovation' are required (Symaco 2012, p. 40). Add to this the fixation of the country on the performance of its universities in the popular (but often contentious) world university rankings, where research output through publications is a key component in performance. One of the schemes promoted by the Ministry to better promote Malaysia as a top educational choice is the setting up of international research laboratories that will enable its HEIs to be global players in knowledge generation. Rapid improvements in research and innovation describe the HE sector, where the significant increase in publications between 2007 and 2012 is considered the highest in the world, with the vital role played by the research universities of the country. Additionally, a fourfold increase in citations is also demonstrated (between 2005 and 2012), while the number of patents filed over the same period also increased by 11%, ranking the country 28th in terms of new patents filed during that period (MOE 2015). The push for globalised online learning is also envisioned to boost greater knowledge transfers (e.g. though blended learning and massive open online courses [MOOCS]) and at the same time improve the Malaysian HE brand. This move also aims to democratise knowledge transfers as opposed to traditional teaching delivery methods.

4.6 Inclusive HE Sector

The expansion of HE in Malaysia as documented in previous sections highlight at the same time the increasing demand for HE services in the country. With a significant rise in international student intake, the same can be said of local students, where HEIs serve about 1.2 million students nationally (MOE 2015). The provision of the Private Higher Education Institutions Act has also instigated better access and opportunities to HE services over the years. Apart from the improved increase in HE enrolment as previously discussed, a marked 2.4 times increase in postgraduate programmes is likewise indicated between years 2000 and 2010, and 10 times for years 1990 and 2010. Malaysia is ranked third in terms of master's and PhD enrolments (4%) just behind Singapore and Thailand in the ASEAN region (8%). The government also aims to improve greater access in HE by improving the 36% tertiary level enrolment (for 2014) to 53% by year 2025. Similarly, improvement to 8% enrolment in postgraduate studies (from 4%) is envisioned for 2025. But despite the improved access in HE services, the government aims, more importantly, to produce holistic global citizens through acquired skills, ethics and morale where they are able to be 'ready and willing to contribute to the harmony and betterment of the

family, society, nation, and global community' (MHEB p. E-12). Entrepreneurial skills are also pushed to create a mindset shift from 'job seekers' to 'job creators'.

Government agencies and foundations have made access to higher education possible through scholarship and loan programmes. Some of these agencies include the Public Service Department (PSD), Khazanah Nasional, the *Majlis Amanah Rakyat* (MARA) and the Tunku Abdul Rahman Foundation. Nonetheless, the National Higher Education Fund Corporation (PTPTN) continues to be the principal source of financial assistance for students entering HEIs, where 70% of financing/loans in the HE sector are covered by PTPTN. Formed in 1997, the PTPTN has since approved a total of 2.1 million loan applications (for 2014) with provision of RM 49.4 billion (MOHE 2011; MOE n.d.). PTPTN has continued to improve access for students to various HEIs through its scheme, who are otherwise unable to pursue tertiary education.

In addition to financial assistance as improving access to higher education, the government has also stressed the need to recognise prior learning by giving credit to experiential learning in order to gain entry in HEI programmes. The MEBHB asserts the creation of a framework that will recognise such experience where a national credit system will 'enable accumulation of modular credits over time, and stipulating clear criteria for recognising prior experience' (p. E-13). In 2009, the Ministry of Human Resources likewise introduced the Recognition of Prior Learning (RPL) scheme where workers can get recognition of their skills/competency from the Malaysia Skills Certification (MSC), the Malaysia Diploma Skills (MDS) or Malaysia Advanced Diploma Skills (MSDS).

Most crucially, an inclusive higher education sector is not only providing opportunities to widen participation, the concept also entails having a system with diversification in terms of institutions to cater for a wide range of students. Although the first university established in Malaysia was modelled after a British university, the higher education sector in Malaysia now has a range of institutions ranging from public to private, universities to colleges, foreign branch campuses to local institutions, as well as Islamic institutions and other higher education institutions that are hybrid in nature (Lee et al. 2015). Yet, underlying the diversity of institutions, it remains fundamental for institutions to be conscious of their purpose and identity in collectively contributing to the development of an inclusive and vibrant higher education sector of Malaysia (Wan et al. 2015).

4.7 Closing Remarks

Higher education in Malaysia has developed by leaps and bounds over the last six decades. Over this period of time, many significant developments have shaped the HE sector. The changing state–university relationship, especially with public HEIs, is key in defining the public HE landscape and development of these institutions. The recognition of private HEIs in 1996 also created the existing dual system in HE that complements as well as competes. In addition, there are also significant

variations of institutions both within the public and private sectors of HE. The role and function of universities have also undergone significant development, from educating the elites and producing civil servants and professionals, to fostering nation-building and readdressing equity in societies. The economic impetus, particularly in the last three decades, has additionally affected Malaysian HEIs. This extends to include developing concerns for the employability of its graduates, as well as incorporating new public management and managerial culture in HEIs with concepts of efficiency, effectiveness, audit and accountability. The preoccupation with competition and global prestige, underlined by the aspiration of Malaysia becoming an international education hub, has further shaped the development of the HE sector of the country. This concern has seen Malaysian HEIs developing a strong focus on research and publication, as seen by the establishment of high-impact laboratories and world-record improvements in publication among Malaysian researchers, and the 'rebranding' of the Malaysian HE sector to further attract foreign students to its shores. Despite the rapid and exciting development of the tertiary sector in the country, there remains a consistent need to deliberate the idea and purpose of universities in the Malaysian context as this remains fundamental to the development of its HE sector for the future. Without such deliberation, Malaysian HEIs are at risk of losing their relevance and identity as key societal institutions to lead the country's future in becoming a developed nation.

Note

1. 1 Malaysian ringgit (RM) = 0.23 US dollars (USD), as of June 2017

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Chapter 5
Education Policies and Practices in Malaysia

Mohd Asri Mohd Noor and Lorraine Pe Symaco

Abstract This chapter provides an overview of education policies and practices in Malaysia. Over the decades, Malaysia has seen significant policy shifts underpinned by the forces of political and sociocultural demands. While some of these policies may be considered controversial, they portray the direction of development the country is heading. The chapter begins with a broad description of the nature of reforms that have taken place over the last five decades, and an overview of the policy development and implementation process in Malaysia. With the aim of providing historical background and outlining the development and implementation of educational policies in Malaysia, this chapter was divided into sections that specifically discuss each level of education in Malaysia from pre-primary to higher education. Each section delineates the important changes that the government has introduced in its quest to improve the education system of the nation. Some issues have also been highlighted to suggest for further improvement in the development and implementation of education policies in Malaysia.

5.1   Introduction

Malaysia is fast approaching its dateline of becoming a fully developed and industrialised nation based on its own mould in 2020 (Prime Minister's Office of Malaysia 2009). Towards this end, Malaysia began to make the transition from an industrial economy to a knowledge-based one since the late 1990s (Aida Suraya 2001). To ensure that Malaysia meets all the nine challenges of Vision *2020* launched in 1990, the Ministry of Education Malaysia (MOE) acknowledges the need to further

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improve the quality of education of the nation (Lee 1999; Aida Suraya 2001; MOE 2009; Shahril et al. 2009). Hence, the Malaysian education system has gone through a series of major changes involving a range of policies on issues such as the language of instruction, curriculum, school types, education philosophy and teacher training. This chapter focuses on educational policies development in Malaysia and describes policies and practices in the national system. But first, we provide an overview of educational policies development in Malaysia in our attempt to assist readers' understanding of the nature of educational policies and practices in Malaysia.

5.2 Overview of Education Policies and Practices in Malaysia

Over the last five decades, major shifts in the functions and reforms of education in Malaysia – underpinned by the forces of political and sociocultural demands – have been witnessed (Hussein 2008). These changes revolve around the issues of equality of access to education, quality of the teaching and learning institutions to enhance the effectiveness of education, philosophy of education, education quality, democratisation of education, world-class education and decentralisation of education. Implementing these reforms was not an easy task as they involve coordination among the various agencies within and without the ministries as well as a huge amount of federal allocation. This is reflected in the increasing expenditure on education as against the total government expenditure and the gross national product (GNP) (Hussein 2008). Thus, attempts at reforms in Malaysia are not always unproblematic. As Malakolunthu (2010, p. 79) observes:

> Not all the reforms have been successful nor has the education standard attained a global recognition. Even more disappointing is the fact that the failing reforms have often been ignored or laid to oblivion over time. Then, another reform will entice and the whole process will get repeated.

These reforms require changes in educational policies and practices. One of the ways policies are formed in Malaysia is through decisions made at cabinet level. This can be done through the recommendation of the Prime Minister (such as the insertion of English in the teaching of Mathematics and Science (ETeMS) policy) or several politicians from the ruling coalition party (such as the introduction of the National Development Policy to replace the New Economic Policy). Sometimes, policies are initiated through administrative processes at ministerial level (such as the Cluster School Policy). At other times, policies may be developed through a combination of both the political channel and administrative processes in an integrated approach – like most other policies in Malaysia (Sufean 2009). Nonetheless, in the context of Malaysian society, the political and cultural milieus are usually not adversarial or confrontational (Ibrahim 2008, p. 29) to the extent that huge respect is accorded to the Prime Minister. Hence, various policy shifts are made through the Prime Minister's suggestions (Brown et al. 2004).

   The main actors in the policy arena in Malaysia generally would comprise the politicians and public administrators, the public, related interest groups, think tanks and the media. The politicians and government public administrators consist of the cabinet ministers, members of Parliament, supreme members of the ruling coalition party (BN) and high-level government officials. They are the major actors in policy development at the federal, state and local governments. The public usually plays a minimal role in the development of policy and is sometimes totally excluded from the process. Sometimes the public may form or join existing interest groups to put forth their ideas and needs for government consideration. These groups consist of professional bodies, such as the Bar Council, civil society organisations such as the Consumers' Association of Penang, trade unions such as the Malaysian Trades Union Congress, religious organisations such as the Islamic Youth Movement of Malaysia, and ethnic organisations such as the United Chinese School Teachers' Association. However, there is no guarantee that these ideas will be taken up by the government. From this perspective, public policies can be seen as the preferences of and decided upon by the elites, carried out by the public officials and administrators (Dye 2008). Nevertheless, think tanks such as the Malaysian Institute for Economic Analysis, and the Institute for Strategic and International Studies, are able to play their roles in the policy process in Malaysia partly due to their close links to elite politicians in the country (Brown et al. 2004). The media is also another policy actor in Malaysia. However, Malaysian media are generally controlled through legislations as well as ownership and control of the major publications (Loh and Mustafa 1996). Thus, most abstain from airing views that are deemed pro-opposition.

   This concept of federalism in the government administration means that the federal government has the most legislative and executive powers and thus monopolises the policy development process as shown in Fig. 5.1. The state governments have limited authorities mainly in the management of state lands, the Islamic religion and state's customary laws. Matters concerning education, defence, international trades, civil laws and so forth fall under the jurisdiction of the federal

Fig. 5.1 Power to develop and implement policies in Malaysia (Sufean 2009)
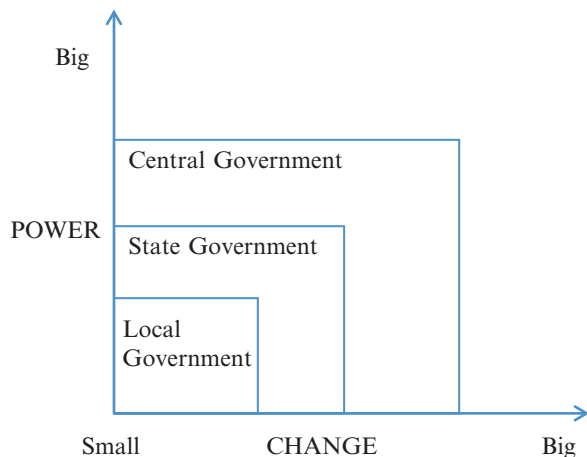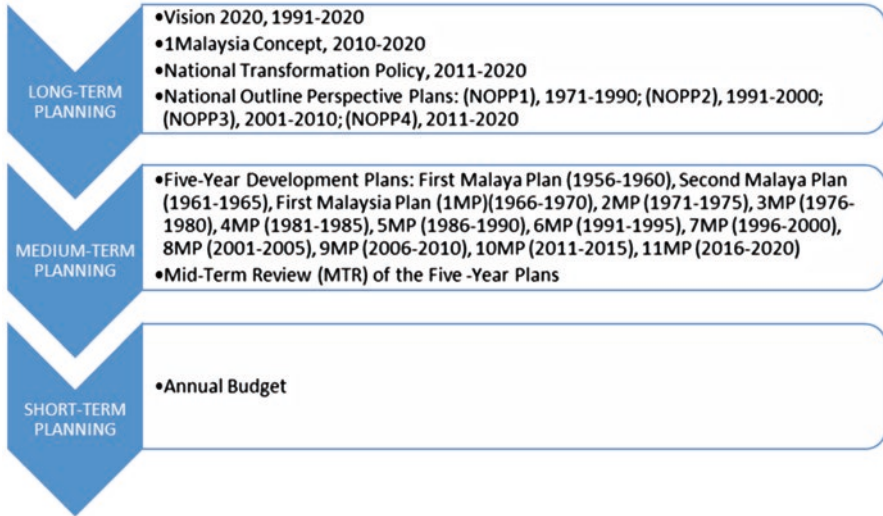
Fig. 5.2 Malaysia's three-tiered development planning cascading framework

government (Sufean 2009). As a result of this policy development framework, education planning in Malaysia is highly centralised – at the Ministry of Education – where the Education Planning and Research Division (EPRD) acts as secretariat (Shahril and Habib 1999). The highest body in the ministry that formulates, coordinates and determines national education policies is the Education Planning Committee chaired by the Minister of Education (Robiah 1989). Other members of the Committee include the Deputy Ministers of Education, Chief Secretary of the Ministry of Education, Director General of Education, Deputy Directors General of Education and the Director of EPRD as the secretary. Other agencies are encouraged to submit proposals through EPRD who will screen and analyse these suggestions before they are brought up to the Committee for consideration.

The policy development process in the country has a three-tiered cascading framework covering the long-term, medium-term and short-term planning horizons as shown in Fig. 5.2 (Hussein 2008, p. 66). Policies have been formulated and implemented throughout important stages in the history of Malaysia, in tandem with the Malaya and Malaysia Plans. These 5-year development plans have hitherto never neglected the education sector as a crucial part in developing the nation. To further illustrate this, the following sections will describe educational development at the pre-primary, primary, secondary and tertiary levels. The discussion will also include issues regarding technical and vocational education.

5.3 Pre-primary Education

The development of preschools and child care centres in Malaysia is closely linked to social demand factor, caused by either economic needs or changes in social values brought about by modernisation. Child care centres began operation in Malaysia with the exploration of rubber plantations and tin mines during British colonisation. These centres were initially established to take care of workers' children, whose parents both worked at the plantations or mines. However, the focus of these centres was mainly on the children's welfare and health, with very limited attention given to their educational needs. Further development of townships and diversification of economic activities, however, brought about the rampant commercialisation of child care centres (Sufean 2004). Many private child care centres were established to cater for the needs of working parents. These centres accept children from as young as a few months old to about 4 or 5 years old.

On the other hand, institutionalised preschools in Malaysia only began in the early 1950s (MOE 1981). At the time, preschool education was provided only for the upper-class children as the fees for such service were relatively high and could not be afforded by lower-income parents. Thus preschool education was considered an elitist privilege even though the teaching staff did not receive professional training. The preschool curriculum was traditional in the sense that it prepared children with the basic 3Rs skills (i.e. reading, writing and arithmetic) to enable them to be considered 'superior' compared to other children. In the 1960s more preschools were established in line with the establishment of new towns in the richer states of Selangor, Johor and Perak. This created imbalance in the development of preschool education among districts and societies (MOE 1981). The awareness of such imbalance had propelled various government agencies and government servant organisations to establish preschools in the 1970s and 1980s. These agencies included Federal Land Development Authority (FELDA), Federal Land Consolidation and Rehabilitation Authority (FELCRA), Rubber Industry Smallholders Development Authority (RISDA) and many other government departments, political parties and religious organisations. By 1981, only 168,768 children (aged between 4 and 6 years) were enrolled in preschools compared to the total number of 972,000 children of that age range. This constitutes about 17.4% of children eligible for preschools who were studying at preschools nationwide (MOE 1981).

There are various policies and legislations to help regulate and monitor pre-primary education in Malaysia. For example, the Child Care Centre Act of 1984, Amendment 2007 (Act 308 & Act A1285) which established a set of minimum quality standards for the operation of childcare centres catering for children below the age of 4 years. Further improvements to the structure and status of preschool education could be seen in the National Education Act of 1996 (Act 550) which replaced the Education Act of 1961. This important bill formally recognised preschool education as part of school education. This has resulted in the formulation of the National Preschool Curriculum and quality standards. An important policy which has adverse effects on early childhood education in Malaysia is the Early

Childhood Care and Development Policy (2008) which "concretises and consolidates existing national policies on early childhood with the aim of providing holistic development of children from birth to four years of age" (MOE 2015a, b, p. 15). This has seen rapid development and expansion of the PERMATA programmes – which focus on providing quality education to preschool children – under the patronage of the wife of the sixth Prime Minister.

As a result of the changes and developments in pre-primary education, the MOE, in its Education for All End Decade Review Report 2000–2015, estimated a total number of 54,295 registered pre-primary centres in Malaysia in 2013. The same report also showed an increase in the percentage of children aged 5 and 6 enrolled in public and private preschools (83%) in 2013 as compared to only 46% in 2000 (MOE 2015a, b). Besides the various policies and legislations mentioned above, this increase could also be attributed to the Ministry's initiative of setting up its preschools on a large scale and extending the fee-free policy for MOE preschool education.

While the number of students enrolled in preschool education has increased tremendously over the years, parents are still wary about the quality of services provided at the government run preschools. Today, three ministries are involved in providing public pre-primary education in Malaysia. They are the Ministry of Education, Ministry of Rural and Regional Development and Department of National Unity and Integration under the Prime Minister's Department. They provide three main preschools known as MOE preschools, KEMAS preschools and PERPADUAN preschools respectively. Growing economic pressures have also resulted in a growing number of two-income families and single-wage earners who live alone and require time outside normal working hours to complete their chores. This has pushed some parents to look for pre-primary centres that operate longer hours such as those provided by the private institutions (Lily Muliana and Mohamed Nor Azhari 2013).

5.4   Primary Education

Historically, primary education had existed in the Malay Peninsular even before the arrival of the British, in the form of Quranic lessons carried out at the religious teachers' homes, *madrasahs* (Islamic schools) or mosques. Prior to the colonisation period, much of the focus of primary education in Malaya was on the inculcation of religious values and acquiring of skills vital for survival, such as fishing and farming for boys, and cookery and weaving for girls (MOE 2009). With the arrival of the British, formal secular primary education was set up for the Malays at the end of the nineteenth century in the Straits Settlements (Penang, Malacca and Singapore) and the Federated Malay States (Perak, Selangor, Pahang and Negeri Sembilan). The medium of instruction (MOI) at these schools was the Malay language. Other schools also began to emerge which were mainly ethnic based. In the colonial view, it would be sufficient for most children to receive a basic education in their own language that would prepare them to accept their allotted role in the colonial scheme,

in which the Europeans were to govern and administer, immigrant Chinese and Indians to labour and Malays to till the fields (Andaya and Andaya 2001, p. 226).

In 1956, a multi-ethnic committee headed by the Minister of Education Abdul Razak Hussein was formed to look into ways of unifying the local education system. The Razak Report made several recommendations which were later incorporated in the Education Ordinance of 1957. The report suggested that a national education system with the Malayan national language (Malay language) as the MOI should be established (Federation of Malaya 1956). The committee also suggested that the Malayan national language shall be used as the MOI in Standard Primary schools (Malay primary schools), and Chinese, Tamil or English be used as the main MOI in Standard-type Primary Schools. The normal age range in a primary school was also set to be from 6 to 13 years with automatic progression in each year. A review of the suggestions made by the Report of the Education Committee 1956 was carried out by the Rahman Talib Committee in 1960. Among other things, the committee further suggested free education at the primary level, accelerated classes for gifted students, abolishment of the Malayan Secondary School Entrance Examination and the introduction of Standard Five Assessment Examination (Sufean 2004).

Today, primary education in Malaysia consists of 6 years and covers the age group 6–12 years. There are two types of public primary schools catering for all Malaysian children: the National Primary Schools and the National-Type Primary Schools. The medium of instruction at the National Schools is Bahasa Malaysia (Malay language) and Chinese or Tamil languages are used in the National-Type Schools. There are also government-supported religious schools as well as private schools (MOE 2015a, b, p. 28). As mentioned earlier, education development in Malaysia has always been guided by the various Malaysia Plans, Education Development Plans and *Vision 2020*. Besides these, an amendment to the Education Act 1996 (Act 550) under the Education (Compulsory Education) Regulations 2002, which came into effect in 2003, has made primary education compulsory in Malaysia. All parents are required by law to register their children at the nearest school in their community before the child reaches the age of 6 and remains in the primary school for a duration of 6 years. The policy has yielded a high primary school completion rate at 99.2% as shown by the 2008–2013 Cohort (MOE 2015a, b).

Although education development in Malaysia is locally driven, to suit the national and social needs as reflected in the objectives of the various Plans and policies, it also runs parallel with the global trend. In the Asia-Pacific region, much like the rest of the world, a global trend of educational reform has been taking place since the 1970s (Cheng 2007). Educational reform in Malaysia in the 1970s and 1980s brought about the efforts to improve the teaching and learning institutions to enhance the effectiveness of education (Hussein 2008). A committee was formed to review the education system in 1979. The Cabinet Committee Report on Education 1979 recommended a change in the primary school curriculum which was seen as a hindrance towards effective education (Sufean 2004). The committee found that the primary school curriculum was too content-heavy. This, according to the report, had created an imbalance in the development of the individual child. Therefore, the

committee suggested that more attention should be given to the development of basic literacy and competency skills (3Rs) and moral and spiritual values (Mok 2012). The recommendations of the committee also resulted in the formulation and implementation of the New Primary School Curriculum (later known as the Integrated Primary School Curriculum or KBSR) in 1983 (Sufean 2004; Siow and Chang 2011). With the implementation of this new curriculum, the Standard Five Assessment Examination was also abolished in 1987 and replaced by the Primary School Achievement Examination taken at Year 6 of primary education.

To ensure all children have access to, and complete, free and compulsory primary education, the priority now is to reach out to the marginalised or remaining children who are not enrolled or are lagging behind scholastically (MOE 2013; 2015a, b). These include children from poor families in urban and rural areas, children living in remote areas, children with special education needs (SEN), the indigenous population, undocumented children, children living in plantation estates and refugees. Some of the strategies implemented include providing financial support for children from low SES backgrounds, establishing Special Education Schools for students with the same type of disability, Special Education Integrated Programme with special classes dedicated to SEN students in regular schools, inclusive education programme where one to five SEN students are integrated into mainstream classes, special programme for the indigenous children (*Orang Asli* and Penan), school in hospital programme and alternative education programmes for street children, undocumented children and children of plantation workers (MOE, 2015a, b).

Currently, primary education in Malaysia is going through yet another reform with the introduction of the Primary School Standard Curriculum or KSSR which has been implemented in stages since 2011. The contents and learning standards outlined in the new curriculum were aimed towards ensuring pupils acquire specific knowledge, skills and values required to produce Malaysian citizens who are knowledgeable and competent and who possess high moral standards so that they can function effectively in the twenty-first century (Othman et al. 2013). This change in the curriculum also saw a change in the assessment methods. Students will no longer be evaluated through the Primary School Achievement Examination. Instead, they will be assessed based on their overall performance and participation in classroom through a set of School Based Assessment (SBA) techniques. These include school assessment, psychometric assessment, physical activity assessment and sports and extra-curricular assessment. Some of the issues relating to this new curriculum and assessment system have been put forth by teachers. Of major concern is the time required to implement SBA in the curriculum given the present teaching hours and teacher workload. This would require serious attention from the Ministry of Education Malaysia to ensure successful implementation of the new policy as it also affects the assessment system at the secondary school level.

5.5 Secondary Education

The Razak Report of 1956 and the Rahman Talib Report of 1960 also played pivotal roles in shaping Malaysian secondary education after independence. The Razak Report suggested that all national secondary schools use either English or the national language, *Bahasa Melayu*, as the medium of instruction. To further strengthen this policy, the Rahman Talib Report recommended that the national language is used as medium of instruction in all public examinations at the secondary education level, except for English and other language subjects. The transition to using the national language as medium of instruction in all secondary schools was finally completed in 1976.

In 1965, the government introduced a comprehensive curriculum at the lower primary level which somehow created various challenges such as lack of teachers to teach vocational subjects and limited number of workshops/laboratories and lack of infrastructure to carry out lessons for vocational subjects. Gradually, the government was able to train more teachers at a few technical colleges and institutes in the country to teach vocational and technical subjects. More financial assistance was also provided to cater for the need to develop more vocational and technical facilities at schools (Sufean 2004).

Despite the government's effort in democratising education in Malaysia through its free compulsory 6-year basic education policy at the primary level, the participation of students at the secondary level was still low. The Murad Report of 1973 suggested some measures to address this issue, such as providing residential facilities at secondary schools, providing transportation assistance for school children, providing textbooks, establishing scholarships and other financial assistance for needy students, improving school library services, and building more secondary schools in rural and remote areas (MOE 1973). While these measures may have reduced the dropout rate of students enrolling at the first year of secondary education significantly by 1990, the percentage was still projected at between 15% and 19% nationwide (Government of Malaysia 1986). Another reason identified was that progression to secondary education was based on the public examination that children sat at the end of their primary education. Those who failed to achieve the required grades were not allowed to continue their studies at the secondary level (Tan 2011).

In line with the resolutions of the World Conference on Education for All held in Jomtien, Thailand, in 1991, Malaysia began its democratisation of secondary school education in 1992 (Lee 2002). This saw the government lengthening the provision of basic education to 9 years – an additional 3 years of lower secondary education (MOE 2006). Students then had to sit for the *Sijil Rendah Pelajaran* (SRP) or Lower Certificate of Education (LCE) examination which was part of a stringent screening process for entrance to Form 4 and Form 5 at the upper secondary level (Tan 2011). This was later relaxed in 1999 with the introduction of the *Penilaian Menengah Rendah* (PMR) or Lower Secondary Assessment examination, whereby students with a pass in any subject were allowed to progress to Form 4 (Tan 2011). This has

allowed almost all students to take the *Sijil Pelajaran Malaysia* (SPM) examination or the Malaysian Certificate of Education examination which is equivalent to the O-level examination, at the end of Form 5. The implementation of this policy further lengthens the provision of basic education to 11 years.

However, teachers teaching Form 4 and Form 5 students had various complaints of the impact of the policy citing students who were academically poor were allowed to continue their studies and therefore disrupted teaching and learning process, created disciplinary problems and congested classrooms especially in urban areas. Furthermore, teachers argued that to cater for the needs of these students, schools were required to increase the number of classes and teaching aids. Teachers also pointed out the fact that the poor performance of these students would ultimately drag the overall performance of the school and state and thus tarnish the quality and image of the school. However, considering the social negative costs that would be incurred, the government decided that schools would still be the best place to save students from falling into the non-functional social groups and poverty cycle (Sufean 2004).

In line with the recommendations of the Cabinet Committee Report on Education 1979, the New Secondary School Curriculum (later known as the Integrated Secondary School Curriculum or KBSM) was formulated and implemented in 1989 as a continuation of the reform of primary education curriculum in 1983 (Sufean 2004; Siow and Chang 2011). An interesting aspect of the new integrated curriculum is the inculcation of moral values across all subjects in the hope of developing balanced individuals as aspired by the newly formulated National Philosophy of Education (NPE) which was unveiled in 1988 and gazetted in the 1996 Education Act:

> Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are responsible and capable of achieving high level of personal well-being, as well as being able to contribute to the betterment of the family, the society and the nation at large. (Government of Malaysia 1996, pp. 11–12)

By the end of 1990s, the Ministry of Education had also introduced an open certificate policy where Form 4 students were given the autonomy to choose subjects that suit their intellectual abilities, talents and interests. However, students were only allowed to choose from three streams: science, arts and humanities, and technical. This policy has made secondary education more flexible and less rigid by giving more opportunities for students to register for more subjects if they are able to cope.

However, one of the biggest issues in the secondary education in Malaysia currently is the participation of students in the science stream. Although the government has targeted 60% students would be choosing science and technological field since the 1970s, Malaysian students have never been able to achieve the target. Many initiatives have been introduced such as setting up science secondary schools

and MARA Junior Science Colleges throughout the nation. Perhaps the Ministry of Education Malaysia needs to consider suggestions such as improving science laboratory facilities in rural schools, enhancing science subject curriculum, improving science teacher training modules, reviewing and improving the assessment system of science and mathematics subjects and encouraging and strengthening research on science and mathematics education (Fatin Aliah et al. 2012). This is crucial as the impact could also be seen at the tertiary level.

5.6 Higher Education and TVET

Higher education (HE) in Malaysia has always been at the forefront of government policies for development. From the First Malaysia Plan (1966) which emphasised the need to equip the country with properly trained human resources for development, government policy orientations for advancement have always confirmed the functionalist approach to education. However, more recent HE policies have focused on the need to ensure that graduates are not only able to function in an increasingly globalised world but also able to integrate the aspects of sustainable development, thereby promoting the necessity to produce technically able holistic graduates in the tertiary sector. The country's agenda to become an international education hub along with its *Vision 2020* have also instigated policy formations in higher education towards this end. The role of technical vocational education and training (TVET) has also been lately emphasised in view of supplementing human capital formation for the country's development. The following sections will detail policies and strategies that have influenced both the HE and TVET sectors in Malaysia.

In view of the need to predict and strategise for the manpower needs of the country, a Higher Education Planning Committee (HEPC) was formed in 1962 which aimed to plan out manpower development in Malaysia for the next 20 years (Malaysia 1966). It was also during this period (i.e. 1965) that a nationwide survey was conducted to supplement the purposes of the HEPC. Given the importance apportioned to human capital development, the University of Malaya (UM) has also seen significant government assistance between the said period to further establish faculties in order to meet this demand. Extended assistance then to UM was also in line with government policies to further human capital formation needed to support a newly independent nation.

The early 1970s saw the creation of other public higher education institutions (HEIs) in the country, still in line with the resource formation requirement of the country. The New Economic Policy (1971), which resulted due to the racial riots of 1969, along with the University and Universities College Act (UUCA) of 1971, has additionally added the role of nation building to HEIs in Malaysia. However, criticisms of the UCCA as curtailing academic freedom during that phase of political instability have been reflected. Higher education policies set after 1969 have also prompted strategies to leverage access to educational institutions for the Malays, an affirmative action that has been recognised to disadvantage non-Malays in terms of

HE access. The establishment of 'aid programmes' for Malay students such as the MARA (*Majlis Amanah Rakyat*) has also positioned better access to HE for the said group (Tan 2002). Additionally, a 55:45 quota in favour of the *Bumiputras* (translated as 'sons of the soil', referring to Malay race and other indigenous peoples from Sabah and Sarawak) has since then been implemented for public HEI access (Selvaratnam 1998), though recent guidelines from the governments in the past decade has supposedly replaced the said quota system to a 'merit' system favouring meritocracy over ethnic admissions preference.

The effects of globalisation in education have also seen policy shifts in higher education in Malaysia. Increase in HE demand, along with the calls to democratise HE access, has strengthened the private sector role in tertiary education in the country. In the 1990s, five public universities were corporatised while the expansion of the role of the private sector in HE was ascertained through the Private Higher Education Institutions Act (PHEIA) of 1996. This Act has promoted both the increase in access to HE and the commercialisation of the tertiary sector in the country – the result of which has seen an increase in joint and twinning programmes, among others, in private HEIs and institutions overseas. There are currently 53 universities, 26 university colleges and more than 350 colleges in Malaysia (MOE 2014). The establishment of the EducCity in Iskandar in the southern part of the country also foresees a greater expansion in internationally linked private HEIs. Malaysia currently has nine international branch campuses (MOE 2014). In addition to the PHEIA, the National Council on Higher Education was also established in 1996 and some of its functions include, among others, "to plan, formulate and determine national policies and strategies for the development of higher education; and to determine policies and set criteria for the allocation of funds to higher educational institutions" (Malaysia 1996, p. 9).

The vital role of the higher education sector in Malaysia has also prompted the formation of the Ministry of Higher Education (MOHE) in 2004, with the National Accreditation Board to ensure the quality of programme offered in HEIs across the country. The National Accreditation Board was then replaced in 2007 by the Malaysian Qualifications Agency – all these in line with quality policies set forth in the HE sector. The perceived significance of higher education has also resulted in HE Plans aimed to promote strategies and policies that will further the role of tertiary education in the country's development. The *Pelan Strategik Pengajian Tinggi Negara* (PSPTN) also known as the National Higher Education Strategic Plan launched in 2007 has been a key document in HE to ensure that policies are set in place to achieve the envisioned high-income developed nation status by year 2020. The role of research and development (R&D) through increase in postgraduate enrolments has also been emphasised in both the 10th Malaysia Plan and the PSPTN as one of the main HE strategies set forth by the government. In addition, the PSPTN has elaborated Critical Action Plans (CAP) in line with promoting a better sustained HE sector. Among the considered CAPs include improved access through the MyBrain15 programme, greater internationalisation, industry-academia linkages and quality assurance (MOHE 2011). The Malaysia Education Blueprint, Higher Education (MEBHE) on the one hand has targeted ten shifts in the HE sector meant

to maintain competitiveness and ensure that the sector responds to the evolving needs of the country. Among the shifts include producing holistic, entrepreneurial and balanced graduates; promoting empowered governance, globalised online learning and a transformed HE delivery; and enhancing TVET in the country (MOE 2015a).

The TVET sector in Malaysia has seen a more visible role in human capital formation of late, and given the government's Economic Transformation Programme (ETP), an additional 1.3 million TVET workers are expected by year 2020. This has pushed the government to better manage the TVET sector alongside pushing for more development expenditures as reflected in recent Malaysia Plans. There are currently over 1000 TVET institutions throughout the country with the Department for Skill Development (DSD) under the Ministry of Human Resources accrediting the programme offered under the vocational training sector.

The TVET shifts under the MEBHE are guided by four central principles (MOE 2015a, p. 4–5):

(a) To make the TVET programmes industry driven
(b) To develop more sustainable funding models
(c) To reduce the complexity of TVET pathways through streamlining qualifications
(d) To improve attractiveness of TVET careers by effective rebranding

With the principles and strategies drawn above in rough, it is envisioned that by enhancing an industry-driven curriculum, skills mismatch will be reduced in the sector. A more efficient system is also planned through a "single contact point per industry to coordinate collaborations and reduce duplication of efforts and programme offerings amongst the Ministry's TVET providers" (MOE 2015a, p. 4–7). Promotion of greater public and private partnerships (PPP) among TVET providers is also envisioned.

Institutionalising a *Politeknik Malaysia* as a multi-campus statutory is also proposed to bring greater autonomy to polytechnics throughout the country and to enable the Ministry to focus on a broader sector-wide strategic and regulatory function. Table 5.1 shows some of the initiatives for the TVET sector of Malaysia in line with policy formations.

5.7 Conclusion

Malaysia has seen remarkable policy shifts in education over the decades, with some considered being fairly controversial – nevertheless, the role of education in mirroring the country's move towards development is definitive. Policies meant to produce graduates able to function in an increasingly knowledge-based society have been reflected through education policy reorientations that define focus on human capital development. Educational trends across the globe also reflect much influence in Malaysia's education sector, broadly defined. For instance, the focus on

Table 5.1 Initiative implementation roadmap for TVET

	Wave 1 (2015)	Wave 2 (2016–2020)	Wave 3 (2021–2025)
Strategy A	Establish partnerships with industries through GLCs and economic corridors implementing authorities;	Increase student internships and apprenticeships;	Increase number of partnerships under the PPP programme;
Enhancing industry-led curriculum	Develop industry-led curriculum and TVET programme bank; and	Set up industry training facilities	Increase number of TVET programmes pre-approved by industries; and
	Embed elements of industry certification in TVET curriculum	Introduce monetary incentives for industry-academia engagements;	Increase programmes offered through Work-Based Learning (WBL) in community colleges, polytechnics and MTUN
		Intensify recruitment of experienced practitioners for adjunct staff; and	
		Enhance community-industry-academia and international linkages	
Strategy B	Enhance roles of Ministry's TVET taskforce; and	Institutionalise outcome-driven approach to optimise TVET provision;	Implement statutory status for all polytechnics;
Creating integrated and coordinated governance structure	Develop comprehensive plan for establishing the statutory status of Politeknik Malaysia and for strengthening curriculum, industry partnerships, IT connectivity and infrastructure	Apply statutory status for at least three polytechnics; and	Benchmark Ministry's TVET providers with regional and international organisations; and
		Increase percentage of polytechnic lecturers and trainers who have industry experience and professional certifications	Improve cost-efficiency and percentage of income generated at all Ministry's TVET providers
Strategy C	Collaborate with other ministries and agencies on a single National Qualification Framework for TVET; and	Align TVET programmes with latest national qualification framework;	Acquire international recognition from relevant bodies and institutions; and
Streamlining qualifications	Develop comprehensive plan for international recognitions	Enhance effective and flexible learning pathways at all Ministry's TVET providers to optimize talent potential, acquire recognition and facilitate articulation between various pathways and qualifications	Implement a seamless articulation system for TVET

(continued)

Table 5.1 (continued)

	Wave 1 (2015)	Wave 2 (2016–2020)	Wave 3 (2021–2025)
Strategy D	Identify and introduce high tech and high value programmes;	Create database of success stories;	Set up a national comprehensive data center for TVET which include data on students, staff, courses, graduate employability, alumni, international students etc
Rebranding of TVET	Rebrand TVET as an attractive choice for students and parents; and	Develop comprehensive plan for articulation between programmes or levels or institutions; and	
	Enhance international reputation and branding e.g. APACC and Dublin Accord;	Develop funding mechanism to finance international collaboration and student/staff exchanges	

Source: MOE (2015a, b), p. 4–11

increasing access and equity in education is seen through initiatives involving the marginalised sector of the society (e.g. person with disabilities, indigenous peoples, among others) though much has yet to be desired in terms of attaining an all-inclusive education sector. The country's goal of becoming an international education hub has also elicited much policy response in terms of upgrading education in Malaysia, with the government investing significant resources to ensure a qualitative and competitive national education system. The creation of the 2015 ASEAN Economic Community has also well-positioned the country in its aspiration to be a major player in the regional education landscape. With the dynamics of international and regional policy influences in place, continuous evolvement in Malaysia's education policies is undeniable as it strives for international recognition while guaranteeing, at the same time, that it produces students that are able to compete in an increasingly modernised world.

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Chapter 6
Teachers and Teaching in Malaysia

Meng Yew Tee and Moses Samuel

Abstract The purpose of this chapter is to broadly describe and discuss the characteristics of teachers in Malaysia and their classroom practices, in the midst of significant and much-needed systemic changes that are expected in the years to come. The data are drawn from various national and international agencies as well as from IMCEP (Inquiry into Malaysian Classroom Educational Practices), a research project that researched teachers' practices in Malaysian classrooms. The IMCEP study found that the predominant teaching practices in Malaysian classrooms are very unlikely to help students improve higher-order thinking and "learning-to-learn" abilities. It is critical to note that when such practices are so consistent and widespread, system-wide issues must be raised. How pedagogical practice plays out in the classroom is shaped in significant ways by the larger social, cultural and political milieu. The discussion attempts to highlight some of the key narratives within this context.

6.1   Introduction

Since its independence in 1957, Malaysia's highly centralized education system has performed quite well in increasing access to education and improving the basic literacy of Malaysians. Enrolment at primary schools is nearly universal. Secondary school enrolment has also seen significant increases. Almost five million students, or close to 90 per cent of school-going children, are enrolled in the 10,000 schools within the public system (Ministry of Education Malaysia 2014a). More than 420,000 teachers serve in the public school system.

While Malaysia has done quite well in increasing access to education, the quality of its education system has been a cause for concern (UNESCO 2014; World Bank 2013; Ministry of Higher Education Malaysia 2012; National Economic Advisory Council Malaysia 2009). There has been a significant decline in learning outcomes standards as well as widening inequality and increase in school dropouts. For example, UNESCO (2014, p. 221) reported that:

> Malaysia witnessed the largest decline in test scores of all countries participating in TIMSS over the decade. In 2003, the vast majority of adolescents passed the minimum benchmark

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in Malaysia, whether rich or poor. However, standards appear to have declined substantially over the decade, particularly for the poorest boys, only around half of whom reached the minimum benchmark in 2011, compared with over 90% in 2003. Poorest boys moved from being similar to average performers in the United States to similar to those in Botswana.

The slide in education quality has hindered Malaysia's ambitions to become a fully developed nation. There is enormous pressure on Malaysian teachers to not only stem this slide but also improve education quality in the country (BERNAMA 2012; Leong 2014; Zachariah 2015). It is with this backdrop that this chapter will describe and examine the state of teachers and teaching in Malaysia.

6.2   Background: Becoming a Teacher in Malaysia

There are predominantly two pathways to become a teacher in Malaysia – one to teach in the primary school, and the other to teach in secondary schools.

The primary school pathway starts after the teacher candidate completes Year 11 and applies to enrol in an institute of teacher education (ITE). Only the top 30 per cent of students or those with a minimum of five distinctions in the national secondary school exit examinations are eligible to enrol in this programme (Ministry of Education Malaysia 2014b). If selected, they will then enrol at one of the 27 institutes of teacher education (ITEs) located in all 14 states throughout Malaysia. It is worth noting that the ITEs are administered by a central leadership based in the nation's administrative capital of Putrajaya, under the auspices of the Ministry of Education Malaysia. Here, the teacher candidate will undergo 1 year of pre-university foundation studies followed by 4 years of undergraduate studies to obtain a teaching degree. Graduates are almost always absorbed into the public primary school system. In 2014, a total of 37,864 students were enrolled in the 27 ITEs (Ministry of Education Malaysia 2014a).

The secondary school pathway mainly begins at a public university, after the teacher candidate has successfully obtained a pre-university qualification that may take 1–1.5 years. Most students who gain entry into the degree programme are above-average students. It will take the candidate 4 years to complete a degree in education. Upon completion, the most suitable candidates are generally selected to teach in the public secondary school system. In 2014, there were 50,408 students enrolled in education courses at the 20 public universities in Malaysia (Ministry of Education Malaysia 2014a).

Candidates with a non-education-related degree are also eligible to enter the teaching profession by completing a mandated diploma programme in teaching. Another way is to serve as a *Teach for Malaysia* fellow for 2 years and then continue to teach in the public school system. Most teachers today, however, enter the public school system via the ITE and public university pathways.

6.3 Teachers in Malaysia

The teaching force in Malaysia, with a female-male ratio of 70:30, is the third youngest among 34 countries that participated in the 2013 TALIS (Teaching and Learning International Survey) study, which surveyed lower secondary school teachers. With the average age at 38.9 years, up to 60 per cent of teachers are expected to remain in the education system for another 20 years (OECD 2014; Ministry of Education Malaysia 2013). The teachers also have lesser experience – 13.6 years compared to the TALIS average of 16.2 years. Interestingly, Malaysian teachers also had the least experience working in jobs other than teaching – 0.7 years compared to the TALIS average of 3.8 years.

Slightly less than half the number of primary school teachers have an undergraduate degree, while 94 per cent of secondary school teachers have similar qualifications (Ministry of Education Malaysia 2014a). Since 2007, all new teachers at all levels must have a minimum of a bachelor's degree. Programmes by the Education Ministry have been put in place to help tens of thousands of in-service non-graduate teachers obtain their degrees.

Centralized System According to a World Bank report (2013), Malaysian teachers work in one of the most centralized education systems in the world. For example, TALIS (OECD 2009) reported that schools, principals and teachers in Malaysia have very limited say in the selection of textbooks, assessment policies and admission policies. Selection and posting of teachers as well as establishing teacher salaries and increments are almost entirely done at the national level.

Job Security and Satisfaction Almost all Malaysian teachers have permanent contracts. Malaysian teachers usually spend their entire careers in the education system, with retirement incentives, salary increments and job advancement pathways rewarding long service. Most teachers are also quite satisfied with their jobs (OECD 2014). However, urgent concerns are being raised about the consequences of such job security. Due to the terms of employment, even persistently underperforming teachers can almost always stay on the job if they choose to (World Bank 2013). Few options are available to school principals to remove underperforming teachers. The Education Ministry has proposed for underperforming teachers to be transferred to administrative functions. Even this can be problematic as many of the administrative functions in schools also carry leadership responsibilities. The longer-term initiatives will have to involve more fundamental changes such as linking salary, career advancement opportunities or tenure more directly to merit and competence.

Salary and Social Status Teachers are reasonably well paid in Malaysia. The average starting salary including allowances is RM2750 per month (approximate exchange rate USD1 = RM4), compared to RM2500 for accountants, RM2800 for lawyers, RM3000 for engineers and RM4300 for doctors (Kaos 2012). According to the World Bank (2013), the more experienced teacher receives a salary equal to 1.1 times that of the Gross Domestic Product per capita compared to the OECD average

of 1.2 times. Although the goal of the Education Ministry is to attract the best and brightest to the profession using an attractive salary scheme, the social status of the teacher is generally still not in the same realm as that of other professionals such as accountants, engineers, lawyers and doctors.

Small Classes The number of teachers in Malaysia's public system has increased, while enrolment in school has steadily declined. The Ministry of Education Malaysia (2013, 2014a) has stated that with more than 420,000 teachers and five million students, the student-to-teacher ratio of 12:1 makes it one of the lowest in the world. In practice, there is an average of 32 students in a class (OECD 2014). It is important to note that while the number of students in each class has on the average decreased quite significantly over the last two decades, many urban classrooms still struggle with burgeoning number of students. For example, more than 40,000 out of 171,000 classes in Malaysia are considered overcrowded, i.e., defined as having 35 students or more (Bernama 2015). On the other extreme, some rural or interior schools may have so few students that they may have to combine students from different grades.

Work Day The teachers who teach in the morning session usually start the day at about 7.30 am, while the afternoon session teachers usually start between 9.30 am to 12.30 pm. They will be in school for about 8–9 hours a day during a 5-day work week. They teach about 25 periods a week, with each period lasting about 40 minutes. This works out to be about 17 teaching hours per week. According to the TALIS survey (OECD 2014), the teachers also spend on average 6 hours for planning and preparing lessons, seven hours marking, four hours dialoguing with colleagues within the school, three hours on counselling students, two hours in communicating with parents, six hours on general administrative work, five hours participating in school management, five hours on co-curricular activities and another four hours on other non-teaching-related tasks. On average, teachers may work up to 57 hours a week (Ministry of Education Malaysia 2013).

Non-teaching Tasks Based on the numbers in Table 6.1, an average of 15 hours of the teacher's work week is consumed by tasks that are not related to actual teaching and learning. The hours spent on doing administrative work, participating in school management and four hours on doing other tasks are well above the OECD average. The Education Ministry acknowledged these tasks are taking teachers away from their core focus and is making efforts to reduce this ratio by eliminating unnecessary administrative work as well as possibly appointing additional clerical support at every school (Ministry of Education Malaysia 2013).

Professional Development More than 90 per cent of teachers in Malaysia spent about 10 days annually in professional development activities, which exceeds the seven days required by the Education Ministry (OECD 2014; Ministry of Education Malaysia 2013). Almost half the teachers did not have to pay for the professional development courses they undertook. A large majority of teachers also reported having received feedback about their teaching and as a result improved their practices. The 2013 TALIS survey also found that 27 per cent of the teachers have a mentor assigned to them. Teachers also reported that the greatest professional

Table 6.1 Comparison of hours spent on non-teaching tasks: Malaysia and OECD average (OECD 2014)

Average hours spent on … /week	Malaysia	OECD average
Administrative work	5.7	2.9
School management	5.0	1.6
Other tasks	4.3	2

development needs were in areas related to student assessment practices followed by teaching practices with technology. These needs closely coincided with major ministry-initiated reforms related to school-based assessment as well as large-scale technology installation programmes.

In summary, Malaysian teachers are relatively young. They work in one of the most centralized education systems in the world, which also happens to provide excellent job security as well as access to professional development. In general, they earn a middle-income salary, although they earn less than other professionals. They tend to teach in classes with about 30 students. They have a 5-day work week, generally working about 45–60 hours a week. They teach about 17 hours a week. They also have significant non-teaching duties that can take their focus away from teaching and learning.

6.4   Discrepancy Between Beliefs and Performance

Teachers in Malaysia are generally confident of their teaching abilities, according to the 2008 and 2013 TALIS survey. A large majority of the teachers see themselves as facilitators who are able to guide their students to cultivate problem-solving and critical thinking skills, as well as help them to value learning. The 2008 survey found that Malaysian teachers' endorsement of constructivist beliefs were stronger than that of direct transmission beliefs. The 2013 survey reported that 98 per cent of teachers in Malaysia believe that they are able to help their students value learning and 92 per cent believed that they can help their students to think critically.

Yet, Malaysian students are struggling to "learn to learn" on their own. Recent poor performance in the Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS) is only a mere indicator of deeper challenges. Employers in Malaysia have expressed deep concerns about young graduates who are not able to communicate effectively and solve problems independently (Ministry of Higher Education Malaysia 2012; Boo 2015). University faculty have struggled with students lacking independent learning skills as well as weak written and oral communication skills.

In other words, we have a conundrum here: Teachers in Malaysia believe that they are doing a competent job, but yet students are not performing at the level one would expect. What can help explain this discrepancy? Numerous studies have shown that teachers' practice is the most influential school-based variable in

predicting student performance (e.g., Hanushek 1992; Hanushek et al. 2005; Rivkin et al. 2005; Rothstein 2009; Rowan et al. 2002). This led to the next question: Are there any studies that can provide a meaningful description of actual teaching practice in Malaysia's classrooms?

Upon reviewing the research literature, there were virtually no broad-based studies on Malaysian teachers' actual practice in the classroom. There are many micro-level, narrowly focused case studies, but macro-level broad-based studies were scarce. The one study that came up in the review of literature is the one study cited in the fifth chapter of the Malaysian Education Blueprint (Ministry of Education Malaysia 2013, p. 5–2). Based on the observation of 125 lessons in 41 schools across Malaysia, this study reported that only 12 per cent of lessons were "delivered at a high standard, utilising many best practice pedagogies". It also reported that the lessons observed used "passive lecture format" and was exam oriented rather than on cultivating higher-order thinking. The report lacked further methodological and theoretical details, but attempts to review the whole report have not been possible as the report is confidential under the Education Ministry.

The IMCEP (Inquiry into Malaysian Classroom Educational Practices) research project was conceived to describe teachers' actual practice in Malaysian classrooms and to remedy the dearth of broad-based national-level studies on educational practices in Malaysian classrooms. Focusing on educational practices – in pedagogy, curriculum implementation and assessment – the IMCEP project aims to provide a bird's-eye view on teaching practices which would provide a national watermark against which deliberations on policy and practice, as well as changes in educational practices over time, may be framed and located.

6.5   IMCEP: Capturing a Bird's-Eye View of Teaching Practice in Malaysia

Twenty-four public secondary schools were randomly selected from across Malaysia. Teachers teaching Year 7 mathematics, science, English and Bahasa Malaysia at these schools were then invited to participate in the IMCEP video study. Year 7 classrooms were selected because they constituted the transition between primary (years 1–6) and secondary (years 7–13) schooling. One hundred and fifty-three teachers gave their consent to be video-taped over three lessons during the week. More than 20,000 minutes of video data was collected and analysed. Methodological details were reported in Tee et al. (2016).

Framework for Teaching or FFT (Danielson 2007, 2011) was adapted to analyse the teachers' instructional practice (see Table 6.2). FFT was chosen because it was developed based on an extensive review of research literature as well as rigorous testing. Its focus on learning and thinking is also consistent with Malaysia's educational goals as well as the research objectives of this project. Using the ten instructional dimensions of FFT (with classifications across a continuum from

unsatisfactory, basic, proficient to distinguish) as a template for analysis enabled us to code for resemblances of practice against established good practices. In other words, the analytical process was based on this principle: the greater the similarity of exhibited practice with the coding framework, the greater the probability that it should be classified in that category (Sternberg and Horvath 1995; Smith and Strahan 2004).

The following is a bird's-eye view of actual teaching practice in Malaysian classrooms from the perspective of the lens discussed above.

6.6 Teachers in the Classroom: Gap Between Belief and Practice

Teachers in Malaysia's public schools strongly believe that they can effectively help students learn and cultivate thinking abilities. However, achievement scores, industry feedback and community responses suggest that students are struggling. Are teaching practices in the classroom helping students learn and think? All the classroom video data were analysed along ten dimensions (see Table 6.2) to provide a bird's-eye view of what teachers do in Malaysia's classrooms.

Instructional Practice Three "natural" clusters emerged from the analyses of the video data (refer to Fig. 6.1). The three practice dimensions in the first cluster were the most positive, where "proficient" practice was most visible. The second cluster includes four practice dimensions that were mostly classified as "basic". And the final cluster has three practice dimensions that were mostly in the "unsatisfactory" range.

First Cluster The three areas that the teachers' practices were proficient in were managing student behaviour (85.7 per cent of practice used by teachers were classified as proficient), managing classroom procedures (81.4 per cent) and creating an environment of respect and rapport (47.9 per cent). In managing student behaviour, most teachers established somewhat clear standards of conduct and did so without acrimony between teacher and students. The teachers demonstrated general awareness to students' conduct, reinforced positive behaviour and dealt with misbehaviour effectively, proportionately as well as respectfully. Consistently distinguished practice was absent in large part due to several missing good practices, namely, proactive preventive action without getting distracted by misbehaviours as well as indicators of a classroom culture where students actively and respectfully regulate each other's behaviour. Classroom procedures and directions were also handled with a similar level of proficiency. There were a number of delays in the start of class, but once the lessons got started, it was apparent that most routines were well established.

The number of proficient practice drops quite significantly between the second and third dimensions. The relationship between teachers and students is more

Table 6.2 Dimensions for classifying teachers' instructional practice (Adapted from Danielson (2011))

Dimension	Description
Manage behaviour	This dimension has to do with the way the teacher engages students with content by proactively and respectfully monitoring students' behaviour, misbehaviour and classroom environment. At a distinguished level, students take an active but respectful role in monitoring their own behaviours.
Classroom procedures	This dimension has to do with the way the teacher gives instructions and engages students in class such as managing and handling instructional groups, transitions, materials, supplies and non-instructional duties where the routines are initiated, well understood and done efficiently with no loss or disruption of instructional time.
Respect and rapport	This dimension has to do with the way the teacher manages relationships and interactions with students and between students. The teacher is caring and respectful as she connects with students as individuals.
Organize physical space	This dimension is about the use of physical environment to promote student learning and give safe environment in the classroom. The teacher modifies the physical environment (including technology) to align with different learning needs.
Communicating with students	The purpose of the lesson is clearly communicated within broader learning goals. Directions and procedures are clear and accurate. Communications about content are vivid, relatable (to students' interests, knowledge and experience), imaginative and invites engagement as well as thinking.
Culture for learning	A positive "culture for learning" is characterized by high cognitive energy and by a sense that what is happening there is important as well as meaningful and that it is essential to get it right. High expectations and positive energy are also evident.
Demonstrating responsiveness	This refers to a teacher's skill in making adjustments in a lesson to respond to changing conditions and seizes opportunity to enhance learning and consolidate understanding. The teacher also uses a broad range of instructional approaches to accommodating students' interest, questions and needs.
Engaging students in learning	Are students asked to do learning tasks and activities that are cognitively engaging as well as consistent with the learning goals? Students are proactive and intellectually engaged, while the teacher scaffolds as needed.
Assessment for instruction	The teacher demonstrates proactive and various practices in monitoring students' understanding, and evidence is used to adjust instruction to advance student learning. Feedback and explanations are provided by the teacher as well as the students.
Questioning and discussion	The teacher's questions initiate higher-order questions and challenge students cognitively; promote metacognition and encourage students to formulate more questions, initiate topics and make unsolicited contributions. During discussion, the teacher ensures students' voices are heard and incorporated into the discussion.
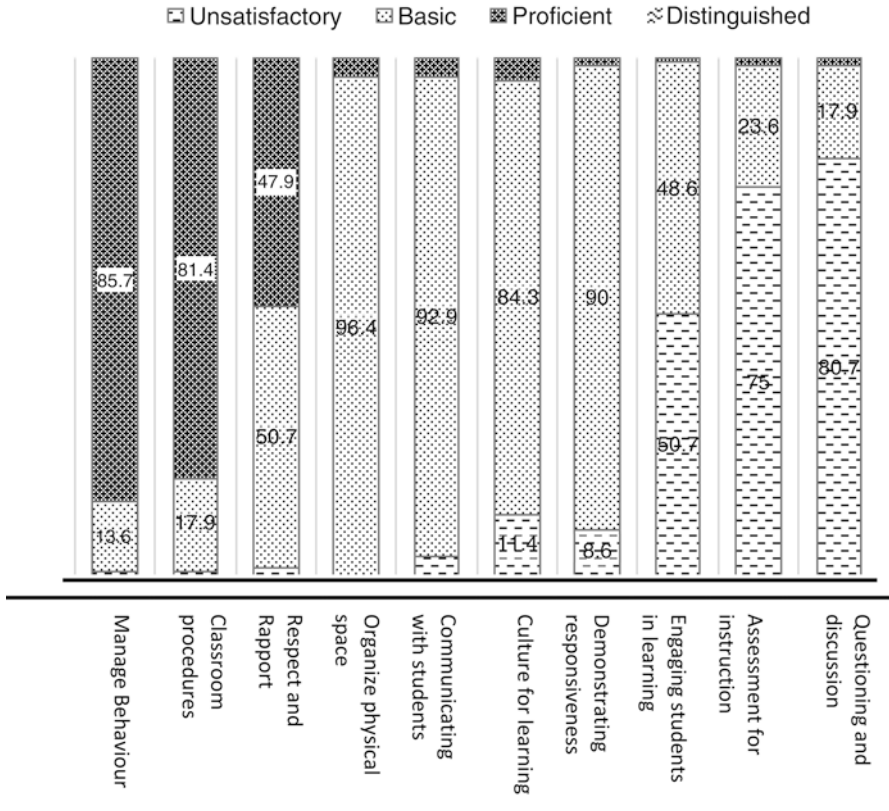
Fig. 6.1 Teachers' practice in Malaysia

respectful than warm. Most teachers seem to make attempts at connecting with individual students' learning needs, interest and personality but mostly at a superficial level.

Second Cluster In the second cluster, there is a significant drop-off from "proficient" practice to a more basic level. Teachers' practice in the four following dimensions were mostly basic in nature: organizing physical space (96.4 per cent of practice used by teachers were classified as basic), communicating with students (92.9 per cent), culture for learning (84.3 per cent) and demonstrating responsiveness (90 per cent).

The average classrooms had a traditional setup – desks and chairs neatly arranged in rows facing the teacher. Even when the furniture was arranged in clusters, collaborative learning by design rarely took place. The goals of learning were not always clearly communicated, and most of the times the teaching going on in class was not situated within broader learning objectives or linked to students' interests and experiences.

In terms of cultivating a vibrant culture of learning, a large number of lessons saw teachers "going through the motion" with cognitive energy not clearly evident. The teachers did not create a sense that what was happening was important and it was essential to master it. Few of the classes observed exuded positive energy or the urgency to learn or understand something. Teachers' expectations for the students, and the students' expectations of themselves, did not seem very high. In terms of responsiveness, the teachers merely made perfunctory attempts to incorporate students' interests and questions, drawing on a limited repertoire of strategies.

Third Cluster The third and final cluster was mostly classified in the "unsatisfactory" range of practice – engaging students in learning (50.7 per cent of practice used by teachers were classified as unsatisfactory), assessing for instruction (75 per cent) as well as questioning and facilitating discussions (80.7 per cent).

In terms of engaging students in learning, most class activities involved passive listening as well as rote tasks. Most of the learning activities were teacher directed, driven by facts and procedures and required minimal higher-order thinking. Students seem more compliant than cognitively engaged. The practices in this third cluster contrast sharply with those in the first cluster above. While the practices in the first cluster emphasize ordering or structuring of learning experiences, the practices in cluster 3 focus more on the cognitive or intellectual demands of deep or higher-order thinking.

Malaysian teachers also seemed to be teaching based on the assumption that the students understand what was being taught, as there was very little evidence of proactive monitoring of students' progress. The most commonly used monitoring strategy was to ask questions to elicit evidence of student understanding. However, this was only performed in a global and general sense without substantive impact on the instructional approach. The use of other strategies such as self- or peer assessment was also conspicuously absent.

There was also a general absence of high-quality questions and discussions. Questions and discussions, when effectively planned and facilitated, should cause students to think and reflect, to deepen their understanding and to test their ideas against those of their classmates. Instead, most of the questions and discussions were narrow and almost entirely teacher directed, with little room for students to contribute meaningfully to the discussion. Exchanges tended to be brief and somewhat superficial, and cognitively unengaging. Questions revolved around a single right answer, and discussions generally did not require higher-order thinking.

In addition, further statistical analysis also found that there was no significant difference between more experienced and less experienced teachers. This is occurring in a context where teacher preparation has supposedly gone through significant changes over the years. Constructivist practices have been emphasized more overly in the last decade, but the findings from IMCEP indicate that teachers who have been teaching for less than 5 years are teaching no differently than teachers who have taught more than a decade. Continuous professional development is now quite widespread, with a large majority of the teachers more than meeting the 7-hour-per-year in-service training requirements. Unfortunately, neither pre-service nor in-

service development as well as significant increases in resource allocation has transformed classroom pedagogical practices so that they incorporate aspects more consistent with developing higher-order thinking.

Summary The practices most critical to helping students develop higher-order thinking all fall in the bottom half of the chart. While a large majority of teachers believed that they can help their students think critically, the video evidence suggests that very few teachers used approaches and created learning environments conducive for cultivating higher-order thinking. Instead, activities in class often required only rote responses, and few opportunities were created for students to subject their thinking to evaluation and feedback. Further studies and analyses are needed to better understand what is driving these conservative pedagogical practices. At least nine in ten teachers in the video data exhibited practice that would very unlikely help students improve higher-order thinking and "learning-to-learn" abilities (see Fig. 6.1, and the seven lowermost practice dimensions that were classified as basic to unsatisfactory).

6.7 Discussion: The Big Picture

Based on the bird's-eye view description from the IMCEP study, several conclusions can be made: First, at the broadest level, there is a large gap between teachers' beliefs and their practices. Although the teachers have a strong sense of self-efficacy, much of what goes on in classrooms – and captured by the video data – suggests that the instructional practices in evidence are not likely to help students improve and develop their thinking skills. Second, focussing on the first cluster of practices described in Fig. 6.1, Malaysia's teachers are relatively proficient in the basic "hygiene factor" of classroom-based teaching and learning – they manage the class and procedures quite well. Third, the last seven dimensions – particularly those grouped around cluster 3 – identify specific classroom teaching practices that need support and improvement.

In light of the above, first, there needs to be a shift in paradigm in the ways in which key educational stakeholders in Malaysia think about learning and education, specifically regarding the epistemic foundations of teaching and learning. Teaching and learning cannot just be characterized by the transmission and acquisition of knowledge (Sfard 1998). These may be regarded as hygiene factors and rudimentary goals of any basic education system, but they are also limiting. Children, throughout 12 years of formal schooling, must instead be accorded a fuller range of opportunities to advance their self-awareness, their thinking, their competencies and their skills. Indeed, the rhetoric of educational reform as expressed in Malaysia's national education plans (Ministry of Education Malaysia 2013) has already made some headway into the nation's consciousness, at least in terms of practitioners' familiarity with the educational jargon and the associated "buzzwords of the day". However, mere familiarity with the terms and fashions of the post-transmission

practices is not enough. To deal with the complexities of human learning associated with the world at large as well as the knowledge economy, teachers, curriculum developers, teacher educators, administrators and policymakers must understand and internalize the appropriate mindsets and actions that define a thinking educational experience. Then only can they move the education system forward as a whole from a narrow focus on the "acquisition" metaphor of learning, towards the more dynamic "participation" and "creation" metaphors of learning (Sfard 1998; Paavola and Hakkarainen 2005).

The system that has served Malaysia so well in the early years of national development in the agricultural, post-agricultural and industrial era now needs to be re-examined. In order to shift paradigms, Malaysia must examine the embedded assumptions and practices in our present ways of thinking about education. Among the questions that policymakers need to address are the following: Are we creating and running schools as places where people can take educated risks, experiment, get feedback and make appropriate improvements? (Bransford et al. 1999). Do children in Malaysia's classroom have ample opportunities to discuss, examine, propose, experiment, evaluate, critique and get feedback on their learning journeys? Do teachers value and promote alternative pathways to understanding among their learners, or is one way of arriving at the "right answer" privileged? More specifically, for the teaching corps, does the system support teachers and teacher educators in their efforts to explore, think through and research alternative classroom and instructional strategies? Could there be experimentation on a larger scale with various lesson designs, instructional sequences and teaching materials? Could there be greater diversity of ideas and discourses taking place in classrooms everyday so that Malaysia's classrooms become genuine marketplaces of ideas? Currently, there is some evidence of this rethinking in policy documents and in the overt discourses of reform, but ironically virtually no evidence of such practices is taking root in Malaysia's classrooms, i.e., in the practices of teaching and learning. The move from theory, to policy, to practice needs to be reassessed.

Second, the above proposal suggests that a comprehensive systemic review of the entire ecology of education in Malaysia is due. There have been over the years various piece-meal initiatives – such as teacher upskilling programmes, or mentoring and coaching programmes – but these have to be seen in terms of the cumulative and collective impact they have on the system as a whole. Key questions that such a review needs to address are: What are the major cogs that drive the education system, and are they in alignment with the national education aspirations to develop "high-calibre and thinking individuals"? How does a centralized bureaucracy impact how schools are organized? What are teachers' core work and competencies, and are they in alignment with the actual work of teachers on the ground? How are resources allocated to achieve the desired competencies? And to what extent are critical practices rewarded and reinforced across the system? While these issues are addressed in the education blueprint (Ministry of Education Malaysia 2013) and the related rhetoric on educational reform, critical systemic synergies are still largely missing.

In reviewing the systemic impact of various initiatives, one needs also to address the underlying paradoxes in the system. Research has pointed to some prevailing paradoxes. Thus, for instance, in terms of resource allocation and expenditures on education, Malaysia has a middle-level ranking, which is not matched by learning outcomes in the PISA and TIMSS measures, which see the country as relatively low ranking. Also, as the IMCEP research reveals, Malaysia's teachers believe they are doing a good job developing higher-order competencies, but their actual classroom practice presents a starkly different picture. These paradoxes and anomalies demand a systemic review of alignments and contradictions. For example, the national teacher coaching and mentoring programmes were driven by sound principles, including mentoring in situ and providing teachers access to expert guidance. In practice, however, it became – for many teachers – another form of bureaucracy-driven teacher inspection (Samuel 2014). In a number of instances, it has been found that teachers refer to their assigned mentor as *pegawai,* a word in Malay which means "officer". Thus, on the one hand Malaysia has a programme designed to develop professional practice and teacher agency, but on the other hand, in its implementation, the teacher is again placed in a disempowered position. Another instance is the expenditure on technology into education. Hundreds of millions have been spent on installing technologies in schools throughout the country, but this has had little impact on transforming teaching and learning practices in Malaysia. Teachers were not adequately prepared to integrate technology effectively into teaching and learning (Ministry of Education Malaysia 2013). Such lack of systemic synergies is an isolated event, but is in fact all too common. This has severely impacted the quality of teaching and learning experiences in Malaysia's classrooms.

Finally, while the blueprint, for instance, does offer direction and highlight key reform emphases in terms of the 11 key thrusts, at the policy level in recent years, we have witnessed major policy shifts which may inadvertently have had an effect on teacher commitment and outlook. For instance, the policy to teach mathematics and science subjects in English was introduced in 2003, only to be reversed in 2009; and in 2017, a pilot scheme for the Dual Language Programme – which resembles the 2003 initiative to use English as the medium of instruction for mathematics and science – was reintroduced. Likewise, the policy announcement made in 2009 that after 2016 a pass in English would be compulsory at the end of secondary education was reversed barely a year before its full implementation in 2015. In other cases, policy implementations have been significantly diluted in the face of widespread criticism. For example, the school-based assessment initiative designed to empower schools and enable more localized and contextually appropriate teaching and learning decisions has been severely compromised. For instance, the initial plan to remove a summative national primary school exam was scrapped just prior to the scheduled period implementation. There has also been major confusion on the part of teachers on how to implement effective school-based assessment for learning. The absence of a coherent policy direction and mixed signals arising out of on-again, off-again policies will continue to compromise the overall coherence of teacher practices seen at the national level. Anecdotal evidence already suggests

widespread cynicism and fatigue as a result of these frequent policy shifts and reversals.

Finally but perhaps most importantly, it is critical to note that the inherent problems with practice discussed above are not solely attributable to teacher shortcoming. When the challenges are so consistent and widespread, the evidence points to system-wide issues. Major aspects from policy coherence and consistency, leadership at every level, to institutional and school culture require that the agenda for change take into account research-based evidence rather than political and administrative expediency. How pedagogical practice plays out in the classroom is shaped in significant ways by the larger social, cultural and political milieu. These must be accounted for if positive change is to be realized and sustained.

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Chapter 7
Changes in the Malaysian School Curriculum from the Pre-independence Years Until the New Millennium

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Abstract This chapter describes the changes in the school curriculum of Malaysia from the period before its Independence until the present period. After describing the meaning and the definition of curriculum to frame the narrative in this chapter, the chapter then goes on to describe the curriculum changes that took place in the Malaysian education system over the period of three different eras. The first era was from the pre-independence years up to 1979, as Malaysia endeavoured to define its nationhood. The next era was from 1980 to 1999, underscored by a major curricular overhaul with the introduction of the KBSR in 1983 and the KBSM in 1988 that put an emphasis on integration of knowledge, skills and values towards producing holistic students. The third era was from 2000 until the present period which saw changes in the medium of instruction twice and the introduction of the KSSR in 2011 followed by KSSM in 2017. The chapter also discusses the catalysts and contexts that bring into effect these changes and explains the success and failures of the changes.

7.1 Introduction

One of the major foci of reforms in the education system of any country, including Malaysia, is the changes made to the school curriculum. The school curriculum structures students' learning experiences, and changes to the curriculum from time to time are aimed at improving the learning experiences of students. This chapter describes the changes in the curriculum from the period before independence until today, as well as the catalysts and contexts that brought about these changes.

The term "curriculum" has been used differently by various authors and researchers in education. For some, curriculum is a plan for teaching and learning. For example, Gagne (1967) defines curriculum as a sequence of content units. To the Indiana Department of Education (2010), curriculum means the planned interaction of stu-

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dents with instructional content, materials and resources that also includes the process for evaluating the achievement of the educational objectives. While Popham and Baker (1970) refer to curriculum as all the planned learning outcomes for which the school is responsible, for others, curriculum is about learning experiences. For example, Ragan (1960) defines curriculum as all experiences of the child for which the school accepts responsibility. Tanner and Tanner (1995) refer to curriculum as the reconstruction of experience that enables the learner to grow. And Glatthorn et al. (2011), p. 4) conceive of the curriculum both as a plan for learning and as learning experiences. They defined the curriculum as "the plans made for guiding learning in the schools, usually represented in retrievable documents of several levels of generality, and the actualization of those plans in the classroom, as experienced by the learners and as recorded by an observer; those experiences take place in a learning environment that also influences what is learned".

However, for the purpose of this chapter, the term curriculum is used as it is usually used in Malaysia, as the plan for guiding schools, textbook developers, teachers and public examination developers as expressed in retrievable documents such as the syllabus and the curriculum guidelines developed by the Malaysian Ministry of Education, and not to the term fully defined by Glatthorn et al. (2011).

7.2 Curriculum Changes in Malaysian Education from Pre-independence to 1979

Recent changes to the Malaysian school curriculum have their roots in the past. Historically, Malaysia inherited the education system left by its colonizer when it became a sovereign independent nation in 1957. The system that was inherited had not provided this country with a single unified national curriculum for either primary or secondary schooling. The absence of a national curriculum framework resulted in separate curriculum for secondary and primary schools and for different school subjects. Classroom teachers during this era were left to make instructional decisions based on other curriculum sources such as available textbooks for primary schools and public examination questions for secondary schools. This section will present curriculum changes in the pre-independence period, as well as in the years from independence to 1979. In discussing the curriculum, changes in the primary school and the secondary school curriculum are considered separately.

7.2.1 Changes in Primary School Curriculum Before Independence (1946–1957)

During the colonial period, primary schooling consisted of the vernacular schools and the English medium schools. There were three different vernacular schools, the Malay vernacular schools, Chinese vernacular Schools and Tamil vernacular

schools. The curriculum for each of these vernacular schools was not only different from the English medium schools but they were also different from each other. Thus, each type of school in pre-independence Malaysia had a different focus or emphasis in their curriculum.

For example, in the Malay vernacular schools, the students learned Malay, History and Geography and were taught reading, writing and arithmetic using the Malay language. Besides that, Quranic teaching was added to the curriculum to appeal to parents to send their children to these schools. The curriculum also focused on living skills such as handicraft, vegetable gardening, basket making and poultry farming.

For the Chinese vernacular schools, the curriculum focused on culture, history and geography of China, and students were taught using different Chinese dialects until 1935, when Mandarin was introduced as the official medium of instruction in these schools. For the Tamil vernacular schools, students were taught History, geography and culture of India. The textbooks and syllabus used in both types of schools were brought in from China and India respectively. There was no public examination in any of these vernacular school systems.

According to Hussein (2012), this resulted in a "separatist" and "divisive" education system according to race and language. Each type of vernacular school had developed its own education goals, using its own medium of instruction. The goal of the Malay vernacular school curriculum was to produce literate Malays and that of the Chinese and Tamil vernacular school curriculum was to produce Chinese and Indian students for the workforce and to improve their economic status. Because of their varied curriculum foci, the pre-independent school experiences offered by the different vernacular schools perpetuated inequality between the races. There was also another type of inequality, a socio-economic or class inequality that had existed during this period due to the existence of another type of school, the English medium school. These schools were set up by the British with English as their medium of instruction and were open to all races. These schools produced students who were better prepared for the next level of schooling – the secondary school and beyond.

To address these inequalities, after World War II (1946–1956), the British colonial administration began to move towards implementing a single unified curriculum in all the schools. Several advisory committees were set up to make recommendations on how to introduce changes in the school curriculum which would overcome the inequalities, which led to influential documents such as The Cheeseman Plan (Cheeseman 1989), The Holgate Report (Federation of Malaya 1950), Barnes Report (Committee on Malay Education and Barnes 1951), Fenn-Wu Report (Fenn and Wu 1951), Education Ordinance (Federation of Malaya 1952) and Razak Report (Ministry of Education 1956). For example, the Chessman Plan of 1946 made several recommendations: one of them was to provide free basic education in all schools; another was to make the English language a compulsory subject in all schools, including vernacular schools. A further example was the Holgate Report of 1949 which was proposed using English as a medium of instruction in all primary and secondary schools. However, there was resistance when the suggestion was rejected by the Federal Legislative Council and the inequality accruing from the different curriculum experiences from the different school systems that continued to exist.

Then, in 1950, again there was another move to overcome these inequalities, when the Barnes Report was produced. It had suggested that all primary vernacular schools use a single standardized curriculum but using two mediums of instruction, Malay and English. The Barnes Report had proposed the conversion of all Malay, Chinese and Tamil schools into National schools.

Also, in 1952, there were two legislative reforms towards this effort of unifying the school curriculum, the Fenn-Wu Reports and the Educational Ordinance. The Fenn-Wu Report had proposed that Chinese vernacular schools should be maintained but supported the idea of setting up "national" schools using a single national curriculum. Based on the Barnes and Fenn-Wu reports, the British also agreed that the Chinese and Tamil languages be taught as third languages, apart from English and Malay in the national schools.

To review the education system before the nation become independent, the Razak Report was produced in 1956. This Report had also proposed that the newly independent nation address the issue of setting up a single national curriculum for all schools. This Report proposed the establishment of two types of public primary schools, the National schools and National-type schools. All the schools should use the same national curriculum. The National schools were to use Malay language as the medium of instruction, while, in the National-type schools, the medium of instruction was either English, Chinese or Tamil, with the Malay language as a compulsory subject. The Report also proposed that a single public examination be administered at the primary school level. These proposals went on to play a significant role in shaping the nation's curricular structure in years to come.

7.2.2 Changes in Secondary School Curriculum Before Independence (1946–1957)

During the period before Independence in 1957, the secondary school curriculum was based on the curriculum from Great Britain. The curriculum changes that were introduced were in line with the changes in the British curriculum. During this era, the English language was used as a medium of instruction in secondary schools, as suggested by the Barnes Report. Furthermore, when the Razak Report was introduced in 1956, it proposed that in the secondary schools, only one common syllabus be used in the classroom and that the Malay and English languages be made compulsory. The force of curricular change at the secondary school level was minimal before independence and it was largely driven from outside of the country (i.e., from Britain).

7.3 Curriculum Changes in Malaysian Education from 1957 to 1979

At the point of independence in 1957, the system of education the country inherited was fragmented and lacked overall cohesion. Without a unified curriculum, and with curriculum support materials mostly from overseas, the task of introducing local content in a curriculum that was appropriate to local conditions and society took centre stage. Over time, changes were introduced regarding the medium of instruction, the centralization of curriculum development and the public examination system.

7.3.1 Changes in Primary School Curriculum After Independence (1957–1979)

In 1960, the Rahman Talib Committee was set up to plan the implementation of the proposals of the 1956 Razak Report. It had aimed at implementing and strengthening the use of the Malay language as a medium of learning and teaching in the primary and secondary schools. As a result, the Rahman Talib report became the basis for the Education Act (Federation of Malaya 1961). Hence, the recommended curriculum in this era was focused on standardizing the medium of instruction in national schools, while Chinese and Tamil were used in their respective national-type schools. Schools were encouraged to use the Malay language to teach all subjects. The supported curriculum such as the text books that were used in the national-type primary schools were similar to those used in national primary schools, although the language used was different.

Before 1964, despite having a national education system, there was no standardized national curriculum or standardized test at the primary school level. Then, in 1964, the General Syllabuses and Review Committee was set up. It resulted in the launching of Comprehensive Education in 1965 and the beginning of the standardized central examination at the end of Standard 5 in 1967. By 1970, there was a major change in the curriculum in the form of medium of instruction in all non-vernacular primary schools. In the 1970s, in accordance to the national language policy, the government began to change English medium primary and secondary national-type schools into Malay-medium national schools. The language change was made gradually starting from the first year in primary school in 1970. The change was completed in the secondary school system by the end of 1982. The post-independence period also saw the introduction of a new school subject named Islamic Studies. This subject must to be taught in all schools that have Muslim students.

7.3.2   Changes in Secondary School Curriculum
After Independence (1957–1979)

Based on the Rahman Talib report, a few changes were introduced in the secondary school curriculum. Among the changes proposed was the provision of free schooling at the secondary level. The report also proposed the establishment of technical and vocational schools and put greater emphasis on the moral and religious education. The Report suggested that there would be automatic promotion of students until Form Three.

Another report, the Hussien Onn Report 1971, was produced by the Ministry of Education with emphasis on the basic education for all children of school-going age. Again, it acknowledged the Malay language as the main medium of instruction and maintained the status of English language as second language. Time allocated for teaching of English language was increased.

A particularly significant development in this period (specifically, in 1973) was the setting up of the Curriculum Development Centre, a central agency responsible for the development of curriculum by the Ministry of Education. With the setting up of this Centre, curriculum planning was now done at the central level involving curriculum specialists.

7.4   Curriculum Changes in Malaysian Education from 1980 to 1999

Towards the end of the 1970s, the Malaysian education system had been increasing its effort in trying to unify and centralize the school curriculum as it had been doing prior to the nation's independence in 1957. As it moved into the 1980s, Malaysia had begun to develop a centralized national framework for the curriculum. It had intended to use this national framework by modernizing the curriculum in order to meet the future manpower needs of an industrialized nation. As a result, in 1979, the Cabinet Committee Report headed by the then Minister of Education, Dr. Mahathir Mohamed, was released with the main objective of reviewing the goals and effectiveness of the education system for the purpose of meeting the manpower needs of the country both for the short and long terms. Besides this, it also aimed to ensure that the education system met the country's goals of producing a united, disciplined and skilled society. This report resulted in a major change in both the primary school and secondary school curriculum in the 1980s and 1990s, as discussed below.

7.4.1 Changes in the Primary School Curriculum from 1980 to 1999

In order to meet the future manpower needs of a united modern nation, the New Primary School Curriculum (KBSR) was introduced for all Primary One students as a replacement to the old primary school curriculum (KLSR) in 1983. The KBSR was introduced because the curricula for all subjects under the old primary school curriculum (KLSR) only consisted of a list of contents of unconnected subjects. The old curriculum for the different subjects was designed independently of each other. Therefore, there was little connection between the curriculum of one subject with that of other subjects. Even though all schools were teaching these subjects, there was little unity between the skills, abilities and content knowledge learned by the students. The separate design of the curriculum according to subjects had also resulted in syllabuses that were packed with too much content to be learned by students. As a result, the KLSR proved beyond the ability of many students (Nik Azis 1995). Therefore, despite being taught with many skills and content knowledge through the various subjects, students did not acquire the abilities needed in building a modern nation moving from an agricultural to an industrial base.

Upon realizing these shortcomings, the Malaysian Ministry of Education proposed a revision of the primary school curriculum, and this revision was to be based on the Cabinet Committee Report (Ministry of Education 1979). The Report proposed that a revised primary school curriculum should be developed to meet the needs of a holistic education that will enable students to not only acquire skills in three basic areas of communication, humanities and the environment but also contribute to the self-development of individuals according to their needs, interests, talents and mental readiness.

As the revision was aimed to guide every student towards achieving holistic and balanced development through the acquisition of reading, writing and arithmetic skills, the KBSR was divided into three basic components. The first component was Communication that included the acquisition of the basic skills of reading, writing and arithmetic through the subjects of Malay language, English language, vernacular languages and Mathematics. The second component was Humanities and the Environment which included the subjects of Man and his Environment, Islamic Education and Moral Education. The third component was Individual Self Development which included the subjects of Art, Music and Physical Education.

Before the KBSR was introduced to all Primary One students in 1983, it was piloted in 302 schools in 1982. The curriculum was fully implemented in all primary schools by 1988. The implementation of the KBSR was divided into two phases or levels. The first level was for students from Year 1 to Year 3 where students had not taken the subject of Man and his Environment yet. Students would take this subject only in the second level, from Year 4 to Year 6. Teachers were encouraged by the curriculum to shift to a more active teaching and learning approach (Nik Azis 1995). Teachers were encouraged to employ approaches that provide active involvement of students in group activities of learning. For example, the KBSR mathemat-

ics curriculum proposed that teachers use teaching methods that incorporate group learning, concrete material and everyday examples in problem solving (Curriculum Development Centre, 2002, 2003).

The tested curriculum of KBSR consisted of formative assessment, progress evaluation and summative assessment (Nik Azis 1995). Formative assessment was administered after the teaching of each basic skill, and the responsibility of the teacher was to immediately conduct remedial activities to students who were found to have not acquired that basic skill. The progress evaluation was administered after the end of a lesson unit, and the responsibility of the teacher was to conduct enrichment activities to students who were found to have achieved the objective of the lesson unit. Summative assessment was administered after the teaching of several lesson units, and the responsibility of the teacher was to plan lessons for new units so that the instruction would be more effective. At the end of Year 6, students sat for a standardized national examination called the Primary School Achievement Test (UPSR) which was administered for the first time in 1988. Among the uses of the results of this examination was to evaluate the effectiveness of the KBSR and to determine students who are qualified to enrol at fully residential secondary schools and premier daily secondary schools.

Despite having the KBSR as a national framework for planning curricular change in primary schools in the early 1980s, this curriculum had not been effective in achieving its objectives of producing holistic students. Therefore, in 1989, the Malaysian Ministry of Education introduced the National Philosophy of Education (Ministry of Education 1993; Curriculum Development Centre 1989) with the aim of producing harmonious and balanced human beings. The Ministry hoped the new National Philosophy of Education would strengthen the efforts towards national unity and the integration of the various subjects in the school curriculum in producing well developed individuals.

To make the primary school curriculum more aligned to the National Philosophy of Education, in 1993 the New Primary School Curriculum was revised and renamed the Primary School Integrated Curriculum. This revised curriculum put greater emphasis on the integration of values in classroom teaching and learning. Teachers were encouraged to use teaching approaches that provided students with opportunities to develop universal human values.

It was also found that during the implementation of the Man and His Environment subject in the Primary School New Curriculum, teachers had failed to introduce primary school students to science effectively. Many teachers tended to focus more on the geography component of the subject. Therefore, in 1994, the Man and His Environment subject was replaced by two different subjects, Science and Local Studies. The Science subject was introduced in this curriculum in order to develop scientific process skills and scientific manipulative skills among Level Two students.

As the nation progressed along the last decade of the twentieth century, there was another change in the primary school curriculum. Malaysia began experimenting with a primary school curriculum that will prepare students to enter the secondary school where they will learn using information and communication technology. The experiment was a response to the setting up of the Multi-Media Super Corridor and

the proclamation on 28 September 1992, that Malaysia becomes a developed nation in its own mould by 2020. This call for change had followed the setting up of the Smart School Initiatives which was launched in 1995 (Shaharuddin and Abiddin 2009). The planning and development of these smart schools were guided by the Smart School Education Blueprint. The Primary School Integrated Curriculum (KBSR) was reviewed and revised to accommodate the changes in teaching and learning approaches proposed by the Smart School Education Blueprint**.** The smart school version of the KBSR curriculum was piloted in only four smart schools beginning in 1999. This version of the curriculum was never implemented in other schools once the pilot was over in 2003.

The years from 1980 to 1999 saw major changes to the primary school curriculum. These changes came about as Malaysia prepared to become a modern industrial nation. These changes were made to ensure that future workers are skilled and competent especially in science and technology.

7.4.2   Changes in the Secondary School Curriculum from 1980 to 1999

As a continuation to the changes introduced in the Primary School Integrated Curriculum which completed its cycle in 1988, the KBSM (Secondary School Integrated Curriculum) was launched for all subjects in all Form One classrooms in 1989 (Curriculum Development Centre 1989). Apart from continuing the changes made in the Primary School Integrated Curriculum (KBSR), the Secondary School Integrated Curriculum (KBSM) was designed to reflect the National Philosophy of Education (Curriculum Development Centre 1989) with the aims of producing harmonious and balanced human being. To achieve this aim, the KBSM was designed to go beyond academic achievement. It hoped to expand the scope of the curriculum to include the human development and awareness of the bases of knowledge. The goal was to overcome the shortcomings of the old secondary school curriculum that overemphasized the importance of examinations, neglected the importance of development of character, as well as the lack of emphasis on spiritual development that contributed to the decline in students' discipline (Nik Azis 1995).

In order to overcome these shortcomings, the design of the KBSM curriculum was guided by several principles such as continuation from the development conducted at the primary school level; general education for all students; lifelong learning; integration in the intellectual, spiritual, emotional and physical development of students; using the currently available knowledge discipline and the use of Malay language as the medium of instruction (Nik Azis 1995).

The KBSM curriculum was implemented in stages beginning in Form One classrooms in 1989. However, for the language subjects, the curriculum was launched 1 year earlier which was in 1988. In order to provide general education to Malaysian secondary school students, the KBSM curriculum made all subjects compulsory

which includes Malay language, English language, Mathematics, Science, History, Geography, Islamic/Moral education, Art education as well as Physical and Health Education. At the lower secondary level, before this change, students got to choose their pre-vocational subjects such as industrial arts, home economics, agricultural science or commerce. In the KBSM, these subjects were abolished and replaced with a single core subject called Life Skills which incorporated all these three subjects. The intention of introducing this subject was to provide lower secondary school students with opportunities to develop skills required to cope with daily life challenges (Rahimah Haji Ahmad 1998).

At the upper secondary level, the KBSM curriculum provided students with greater and deeper knowledge and skills as preparation to become experts in nation building. The curriculum made compulsory the following core subjects: Malay language, English language, mathematics, science, history, Islamic/Moral education, and physical and health education. But it also provided students with more choices of specialization based on their interest. Instead of being streamed into either Science or Arts streams based on the results of the SRP (Lower Certificate of Education) examination taken at the end of their lower secondary years, students got to choose and enrol in three elective subject areas: Humanities, Science, as well as Technical and Vocational. Students get to choose a minimum of two and a maximum of four subjects from each of these electives group Nik Azis 1995).

For the Humanities group, the subjects offered were Malay literature, English literature, higher Islamic education, geography, additional science and art education. For the Science group, the subjects offered were physics, chemistry, biology, and additional mathematics. For the Technical and Vocational group, the subjects offered were basic economics, surveying, commerce, home economics, building, engineering, technical drawing, agricultural science and accounting.

In implementing the KBSM curriculum, since it was a continuation from the KBSR curriculum change, teachers were similarly encouraged by the curriculum to use more active learning approaches (Nik Azis 1995). To teach the new curriculum, teachers were expected to put greater emphasis on the development of individual potential, holistically and in a balanced and integrated way through (1) implementing curriculum content of knowledge, skills, values, attitudes and behaviours needed by all students, as the basis of lifelong learning; (2) greater understanding and practice of spiritual, humanistic and civic values and (3) enhancement of the mastery of the Malay language as a language of communication and knowledge (Nik Azis 1995).

To ensure effective implementation of the KBSM curriculum, teachers were expected to employ approaches that involved the following dimensions in their teaching: (1) acquisition of knowledge, (2) enhancement of thinking abilities, (3) inculcation of values, (4) mastery of Malay language and (5) making connection across subjects. This can be achieved through active involvement of students in learning.

The KBSM curriculum then underwent a change during this period, in response to the smart school initiatives, and a Smart School KBSM curriculum was piloted in 83 smart schools in 1999. However, this curriculum was never implemented in all secondary schools once the pilot concluded.

7.5 Curriculum Changes in Malaysian Education in the New Millennium

7.5.1 Changes in the Primary School Curriculum in the New Millennium

In 2000, with the turn of the millennium, the review of the Primary School Integrated Curriculum (KBSR) was completed. One of the driving forces for the revision of the KBSR would be the technological advances in the information age. The need to produce a workforce that is technologically competent as well as the development and importance of Information and Communication Technology (ICT) in the Malaysian economy influenced the decision to revise the KBSR.

The revised KBSR was implemented in 2001. In 2003, the government took a bold decision to change the medium of instruction in the teaching of science and mathematics to English in all national and national-type primary schools and national secondary schools. Thus, the KBSR curriculum was revised for the science and mathematics subjects. This curricular initiative was known as the Teaching and Learning of Science and Mathematics in English (referred by its Malay acronym PPSMI). Beginning in Year 1 classes in 2003, the PPSMI was implemented incrementally and the full cycle of primary education of 6 years was completed in 2008. In the Chinese national-type primary schools, the teaching of science and mathematics was conducted in both English and Mandarin. The rationale for this change was that this would better prepare the nation for globalization. It was envisaged that the policy would enable students' mastery in science and mathematics as most of the resources are readily available in the English language. In addition, when the students know the science and mathematics terms in English, they would be able to look for additional information from the internet and also read research articles (2004).

However, after 6 years of implementation, in 2008, the decision was made to reverse the medium of instruction in the teaching of science and mathematics from English back to Malay. According to the Ministry of Education (2008), this was done for several reasons. Firstly, studies found that students faced difficulty in learning science and mathematics in English as they were not proficient in the language. Secondly, many science and mathematics teachers were not competent in delivering both the subjects in English. This caused the teachers to teach both the subjects in Malay or partially in English and Malay. It is also important to note that PPSMI was opposed by numerous political groups, Malay nationalists, as well as Chinese and Tamil educationists. Some parents were unhappy with the reversal as the English proficiency was slowly improving among the rural students without English-speaking background.

In response to the reversal of the PPSMI (Teaching of Mathematics and Science in English) policy, MBMMBI (the Malay acronym for Upholding the Malay language, Strengthening the English language) policy was introduced in 2010. This policy has the objective of ensuring that students master both the Malay Language

and English language. A revised Malay language curriculum and English language curriculum were introduced to improve the teaching of both subjects. The teaching of science and mathematics in Malay language was implemented beginning in Year 1, while students in the other primary year levels who had begun to do mathematics and science in English under the PPSMi policy would continue in English. Using the so-called soft landing approach, pupils who have learnt mathematics and science before 2010 would continue to do so until they completed their secondary education. The teaching of science and mathematics using the Malay language was re-implemented fully in national schools by 2016.

In 2010, the Ministry of Education (MOE) introduced the Standard Curriculum for Primary Schools (KSSR) to replace the Integrated Primary Schools Curriculum (KBSR). One of the key driving forces behind the introduction of the KSSR curriculum was the poor international assessment results, in particular the Trends in Mathematics and Science Study (TIMSS) and Programme for International Student Assessment (PISA). As the nation developed, the goal of this new curriculum was to provide students with the relevant knowledge, skills and values to face the challenges of the twenty-first century (MOE 2010). The KSSR implementation started incrementally with Year 1 in 2011; and by 2016 all 6 years of primary education followed the new curriculum. The curriculum document for all the subjects at the primary level is known as the Standard Curriculum Document and Assessment (DSKP) and was an attempt at integrating instructional and assessment standards.

The formulation of KSSR was based on statements of standards. Each statement of standards consists of content standards and learning standards that students need to achieve in a specific period and level of schooling. The Content Standards – covering knowledge, skills and values – spell out what students are required to know and be able to do within a specific year of schooling. Learning Standards refers to the indicators of the education achievement that can be measured for each content standard (Ministry of Education Malaysia 2012).

The KSSR curriculum is divided into two levels: Level 1(Year 1–Year 3) and Level 2 (Year 4–Year 6). In Level 1, the emphasis is on the mastery of the basic 3R's (reading, writing and arithmetic), basic ICT, reasoning skills, the development of socio-emotional, spiritual, physical and cognitive competencies (Ministry of Education Malaysia 2010). The knowledge section is divided into three main modules: the core basic module, the core thematic module and the elective module. The focus of the core basic module includes literacy and numeracy and spiritual development through subjects such as *Bahasa Malaysia* (Malay language), English, Chinese or Tamil (only for national-type schools), mathematics, Islamic education (for Muslim pupils) or Moral education (for non-Muslim pupils) and physical education. The Thematic Core Module consists of three subjects, namely "Arts and Me", "World of Science and Technology" and "*Malaysia Negaraku*" (Malaysia My Country). The Elective Module contains language subjects such as Chinese, Tamil, Arabic, Iban, Kadazandusun or Semai, which schools could offer based on pupils' request.

At Phase II in the primary level, the curriculum emphasizes strengthening and applying the 4Rs including reasoning, basic ICT skills, the development of socio-

emotional, spiritual, physical and cognitive. Content knowledge is available through all the subjects. Core subjects such as *Bahasa Malaysia*, English, Chinese and Tamil (for vernacular schools), mathematics, science, Islamic education, Moral education, physical education and health education are retained. One of the key differences between the KSSR and KBSR curriculum is the focus on the 4Rs (Reading, Writing, Arithmetic and Reasoning) in KSSR, compared to the 3Rs (Reading, Writing and Arithmetic) in KBSR. In KSSR the focus is on six pillars such as communication, spiritual attitude and values, humanities, literacy in science and technology, physical and aesthetic development and personal development, while in KBSR the focus was on the three areas – communication, man and his environment and self-development of the individual. The curriculum was framed based on the learning outcomes in KBSR, while in KSSR, it was based on content and learning standards. In the KSSR document, the final examination grade would be the score in the national examination at Year 6 (UPSR) and school-based assessment.

The table below compares the differences between the KBSR and KSSR curriculum.

KSSR	KBSR
Curriculum design is based on six areas:	Curriculum design is based on three areas:
Communication	Communication
Spiritual, attitude and values	Man and his environment
Humanitarian	Self-development of the individual
Physical and aesthetical development	
Science and technology	
Curriculum materials	Curriculum materials
Curriculum standard documents	Study syllabus
Design of the curriculum:	Design of the curriculum:
Modular	Linear
Organization of the curriculum:	Organization of the curriculum:
Level I (Year 1, 2 & 3)	Level I (Year 1, 2 & 3)
Basic core modules, thematic core modules and elective modules	Core, compulsory and additional subjects
Level II (Year 4, 5 & 6)	Level II (Year 4, 5 & 6)
Core and elective subjects	Core, compulsory and additional subjects
The elements of creativity and Innovation, entrepreneurial, information technology and communication	Elements of analytical and creative thinking skills
Focus:	Focus:
4 M (Reading, writing, counting and reasoning)	3 M (Reading, writing and counting)
Curriculum materials	Curriculum design is based on three areas:

KSSR	KBSR
Curriculum standard documents	Communication
	Man and his environment
	Self-development of the individual

Source: MOE (2010)

In KSSR, besides the traditional summative assessment, the implementation of the school-based assessment was intended to evaluate and give feedback to student more regularly, for example, during and after classroom activities. School-based assessment (known by its Malay acronym, PBS) was introduced as part of the national transformation programme to enable the education system to produce more balanced and higher-quality human capital. The PBS is a holistic assessment that evaluates the cognitive, affective and psychomotor domain that includes the intellectual, emotional, physical and spiritual aspects. Some examples of PBS activities in the classrooms include quizzes, assignments, forums and question-and-answer sessions. It began in 2011 with the Year 1 pupils. From the start, the idea of the PBS was not linked directly to the KSSR curriculum. Only in 2013, the PBS assessment was included in the KSSR Year 4 document. Performance standards were included to assess the specific Learning Standards in each topic of the subject. Using a six-point mastery level scale, students are assessed using the performance standard which determines what learners are expected to achieve. Higher order thinking elements were also embedded in the KSSR documents known as the standards documents. This was written explicitly into the content standards and learning standards in the standards documents for all subjects and levels.

7.5.2   Changes in the Secondary School Curriculum in the New Millennium

In 2001, the Secondary Integrated School Curriculum (KBSM) was revised to meet millennium challenges and technological advances. The development of higher order thinking was emphasized with inclusion of the Critical and Creative Thinking Skills (CCTS). This was done with the aim of not only producing intellectually competent individuals with rational minds, but also developing their critical and creative thinking skills. All subjects at the secondary level were revised accordingly to meet the new challenges.

In 2003, the medium of instruction for the science and mathematics subjects was changed from Malay language to English, as discussed in the section above on the primary school curriculum. This policy was known as the Teaching and Learning of Science and Mathematics in English (PPSMI). In line with this policy, the KBSM curriculum was revised for all the science and mathematics subjects. The PPSMI

started for students in Form One at the secondary level and also Lower 6 at the pre-university level in 2003. The full implementation of PPSMI to all secondary students was completed in 2007. However, as discussed in the primary school curriculum above, this policy was reversed in 2010. Using the soft landing approach, students who started learning science and mathematics could continue doing so until they completed their secondary education. Schools were also given the flexibility to teach both the subjects in the Malay language. The KBSM curriculum for science and mathematics subjects was translated into Malay language from the original document in English. The next curriculum reform for all subjects at the secondary level will be the introduction of the Curriculum Standards for Secondary Schools scheduled for implementation in 2017. This reform effort is a continuation of the Curriculum Standards for Primary Schools which were completed in 2016.

In line with developments in the primary school, School-Based Assessment (PBS) was introduced at the secondary level beginning in 2011. The revised examination known as Form Three Assessment (PT3), which replaced the earlier PMR (Lower Secondary Examination), involves a centralized assessment component along with school-based assessment (PBS). The PT3 examination started in 2014. Schools conducted the PT3 examination based on an instrument and standardized scoring guideline provided by the Examination Syndicate. Each student will receive the School Report, Psychometric Report, Physical Education, Sports and Co-Curriculum Report as the overall School-Based Assessment report.

7.6 Discussion and Conclusion

Throughout the changes introduced into the Malaysian school curriculum, a common theme seems to recur in explaining the success or failure of the changes. For example, during the era after 1980, where substantive changes were introduced into the Malaysian education system in the form of the KBSR curriculum, Azizah (1987) found that the introduction of KBSR in 1983 met with difficulties because the conditions in Malaysian schools were not conducive to the changes introduced by this curriculum. Azizah's ethnographic investigation identified several factors that became a barrier to the success of the changes. One of them was the lack of training and professionalism among Malaysian education personnel then. She also blamed the hasty implementation of KBSR and its implication for "crash" initial training programmes for the participants involved in the change. Another factor that she identified was the centralized control and the hierarchical organizational structure of education in Malaysia.

As the Malaysian economy developed, the focus on the knowledge-based economy became more relevant. The role of knowledge in human capital development became an important aspect in economic development of the country as acknowledged in the national development plans. It was deemed essential to educate the future workforce in critical thinking to prepare them to contribute to the country's

economic advancement. That was the catalyst for the revision of the KBSR and KBSM curriculum for all subjects in schools in 2001.

Another curriculum change that resulted in implementational hiccups when implemented was the change on the medium of instruction for the science and mathematics curriculum from Malay to English language. Even though the curriculum change in science and mathematics through the PPSMI policy was well intended, it was a failure due to the hasty implementation similar to the KBSR implementation failure (Azizah 1987). The key challenge of the mastery of the English language among both teachers and students was not taken into account when implementing PPSMI (Hwa 2011). Likewise, the short timeframe for teacher preparation contributed to teacher resistance to change in many schools.

Malaysia's poor performance in the international assessments was also one of the drivers to revise the curriculum towards the standards-based curriculum. In the Programme for International Student Assessment (PISA) 2012, Malaysian students' performance was below the international average in mathematics, science and reading. However, the KSSR curriculum implementation, done cohort by cohort beginning in year 2011 with teachers in Year 1, encountered many of the problems encountered in the implementation of the KBSR in the early 1980s in terms of dissemination of information and teacher preparation. Furthermore, the introduction of the assessment standards called performance standards in the curriculum was also done hastily and only introduced in the Year 4 curriculum beginning in 2014, midway during the implementation of the KSSR.

Implementation issues continue to be a major challenge. In a study conducted by a research team from the University of Malaya investigating teachers' practices in Form One classrooms (Tee et al. 2016), it was found that when it came to the curriculum implementation practices, a large majority (89.3%) of teachers offloaded the curriculum by relying significantly or entirely on existing curriculum materials. About 10% had adapted from the existing curriculum by adding their own design elements. While, only a small fraction of teacher (0.7%) had innovated in their implementation of the curriculum by using the existing curriculum as a "seed" but eventually implemented the curriculum in novel ways. The same study also found that almost all teachers had not made much connections of topics within the subject they are teaching, between the subject they are teaching and other subjects and to the real-world despite emphasis of these in the present KBSM curriculum. They had not made any attempts to help students explore intra- and inter-disciplinary relationships with the curriculum being implemented. Most teachers did not attempt to connect lessons to real-world experiences and situations.

Through the years, the curriculum landscape in Malaysia has seen many changes. However, particularly in the last decade or so, much of the changes and progress have been impeded by implementation issues as well as overall lack of coherence and continuity. These challenges must be addressed more comprehensively to pave the way towards a better education system for the country.

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Chapter 8
The Role of Indigenous Languages in Schools: The Case of Sarawak

Su-Hie Ting and Yvonne Michelle Campbell

Abstract This chapter describes the role of indigenous languages in Sarawak schools, beginning with a brief background on the diversity of languages and indigenous language use patterns in the state. This is followed by a description of efforts to preserve and promote the formal learning of indigenous languages in various indigenous communities, with a special focus on the Bidayuh and Iban communities whose languages have been used for formal education. Efforts to preserve Sarawak indigenous languages in the early twentieth century took the form of producing orthography for the language. The Iban language has been standardised and offered as a school subject but it is more difficult for Bidayuh to become a school subject due to the regional variations in Bidayuh isolects. In recent years, Bidayuh has been introduced as a medium of instruction in some preschools run by the Dayak National Bidayuh Association. The other Sarawak indigenous languages have some written materials in their languages but they are far from integrating into the Malaysian national curriculum. The initial effort in this direction has to come from the indigenous communities but research has shown that belief in the heritage value of indigenous languages alone is not sufficient to mobilise community literacy activities on a long-term basis.

8.1 Background on Language Education Policies on Indigenous Languages in Malaysia

The National Language Policy encapsulated in Article 152 of the Constitution established Malay as the sole national language of Malaysia, and in 1967 the Revised National Language Act made Malay (Bahasa Malaysia) the sole language for official purposes of communication in West Malaysia. The National Language Policy aims to make Malay the shared language of communication and an instrument of assimilation in the plural society.

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The implementation of the national language policy was delayed in Sarawak due to the language diversity and the geographical expanse of the state. The changeover from English to Bahasa Malaysia as a medium of education began six years after West Malaysia (in 1976 at Primary One level and was completed in 1987 at Form Five level in Sarawak). It was only in 1985 that the Sarawak State legislature agreed to the use of Bahasa Malaysia as the official language in Sarawak although this policy took immediate effect in West Malaysia with the formation of the Federation of Malaya in 1957 (Ting 2001).

There is provision in the language policy for the teaching of indigenous languages in Malaysia, and this is in the form of Pupil's Own Language (POL). POL is provided for in the Report of the Cabinet Committee on the Implementation of the National Education Policy (1980) (as cited in Omar 1983). Although POL policy allows for the teaching of indigenous languages if there are requests by at least 15 parents, its implementation depends on whether the indigenous languages have been put into writing. As early as the early 1980s, Omar (1983) has noted that the indigenous language Iban is better than Kadazan and other indigenous languages as there are already many books published on the Iban folklore and customs.

The indigenous people groups in Malaysia include "the Orang Asli in the Malay Peninsular, the Dayaks of Sarawak, the various ethnic groups in Sabah that include the Dusun (or Kadazan), Bajau, Murut and other groups, the Malays both in Sabah and Sarawak as well the Peninsular" (Bulan, 1998, p. 131, as cited in Ibrahim 2013).

The implementation of language policies in Malaysia is through the education sector. "The Malaysian government has a strong hold on education: any major change in language policy has always needed approval at the government level" (Gill 2005, p. 242). Therefore, the teaching of indigenous languages in school needs to be viewed in the context of policies on the medium of instruction.

Public schools in Malaysia (referred to as national schools) use Malay as the medium of instruction but languages like Mandarin, Tamil and some indigenous languages are offered as subjects. On the other hand, private schools (referred to as national-type primary schools) use Mandarin, Tamil or other Indian languages as the medium of instruction. Within this framework, it is possible for indigenous languages to be used as the medium of instruction provided the indigenous language is written and there are teaching-learning materials for the full range of subjects, and the indigenous community is committed to establishing these schools. The teachers' salary and part of the operating funds are provided by the Malaysian government, and the rest of the funds are raised by the school board which comprises members of the community.

There are no specific policies on indigenous languages in Sarawak as the national level initiatives are implemented at state level by the state educational departments. However, there are some community initiatives for the teaching of indigenous languages. UNESCO (2005) notes that recently "several indigenous peoples of East Malaysia began education programmes using local languages, taught mainly as school subjects. However, these endeavours cannot yet be considered bilingual education" (p. 5).

8.2   Background on Language Diversity in Sarawak

Ethnic groups have their own ethnic languages which are mutually unintelligible and in situations of interethnic contact, a shared language of communication is needed. Sarawak has greater language diversity because of greater ethnic diversity than the general Malaysian population. Malaysia has a population of 31 million, comprising the Bumiputera (including Malays) (61.79%), Chinese (21.36%), Indians (6.42%), other races (citizens) (0.87%) and non-citizens (9.57%) (Department of Statistics Malaysia 2016). However, Sarawak has more ethnic groups and, as a result, greater language diversity. Table 8.1 shows the ethnic breakdown of the Sarawak population based on the 2000 and 2010 census (Ting and Rose 2014) and the 2015 population estimates.

The 2000 census provided more details than the 2010 census. Even so, the 2000 population census lists only 13 ethnic groups. Ethnic groups like the Bisaya, Kedayan, Tagal, Tabun, Ukit, Buketan, Lisum, Saban and Sian are grouped under "Other Indigenous and Bumiputera" in the 1990 census (Jehom 1999). Other sources have reported Sarawak as having 26 ethnic groups (MRG 2005) or even 40 groups (All Borneo Connection Tours 2012; Sarawak Tourism Federation 2015). In this chapter, the term "Sarawak Indigenous" is used to refer to non-Malay ethnic groups originating from Sarawak.

Table 8.1 Population breakdown by ethnic group in Sarawak by percentage

Ethnic groups		2000 census	2010 census	2015 estimates[a]
Malay		22.71	22.99	70.16
Iban		29.18	28.87	
Bidayuh		8.05	8.03	
Melanau		5.47	4.99	
Other indigenous	Kayan	1.27	6.33	
	Kenyah	1.24		
	Lun Bawang/Murut	0.75		
	Penan	0.61		
	Kajang	0.22		
	Kelabit	0.24		
	Punan	0.01		
Other indigenous and Bumiputera		4.34		
Chinese		22.50	23.38	22.63
Indian		0.19	0.30	0.28
Other nationalities		0.19	0.37	0.28
Non-Malaysian citizens		3.03	4.74	6.65
Total percentage		100.00	100.00	100.00
(Total Sarawak population)		(2,009,893)	(2,471,140)	(2707,600)

[a]The population estimates of the 2015 population based on the 2010 census provided by the Department of Statistics, Malaysia (2016), group the Malay and other indigenous together as one category

The use of umbrella terms to group smaller Sarawak indigenous groups may underrepresent the ethnic diversity of Sarawak. Some collective terms used are as follows:

- Dayak for referring to Iban (Sea Dayak) and Bidayuh (Land Dayak)
- Orang Ulu which includes Kelabit, Kenyah, Bukitan, Bisaya, Kayan, Kajang, Lugat Lisum, Lun Bawang, Penan, Sian, Tahun, Ukit and Saban (Orang Ulu National Association, Rule 3(11), cited in Seling and Langub 1989).
- Kajang which includes Sekapan, Kejaman, Lahanan, Punan Ba, Tanjong and Kanawit
- Kenyah which includes Sebop, Seping, Kiput, Badang and Berawan

To add to the complexity, within the Bidayuh group there are five isolects which are closely related but mutually unintelligible, namely, Salako and Rara (Lundu District), Bau-Jagoi (Bau District), Biatah (Kuching area, for example, Siburan and Penrissen) and Bukar-Sadung (Serian District) (see Fig. 8.1). The differences between the isolects are too great for a standard orthography and spelling system to be developed based on all of the Bidayuh dialects (Joyik et al. n.d.). Studies by Topping (1990), Mohamed and Abdul Wahab (2004) and Rensch et al. (2011) confirmed that the Bidayuh dialects have low percentages of shared cognate lexical forms.
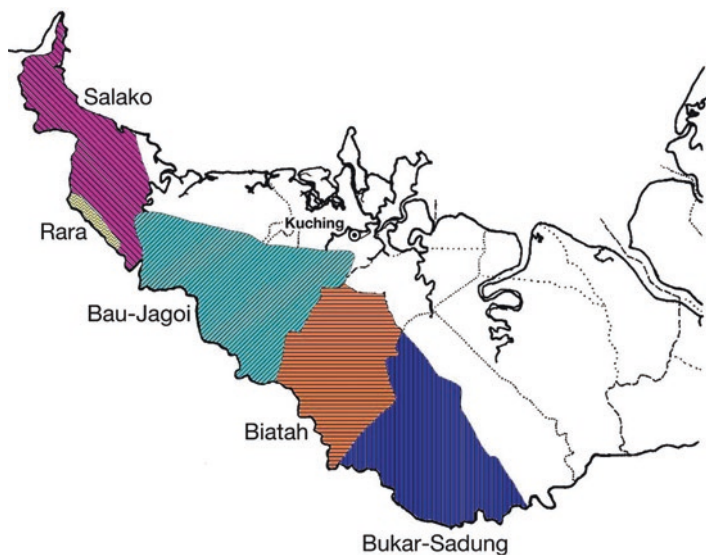
Fig. 8.1 Map showing concentration of Bidayuh groups in Sarawak (Source: Rensch et al. 2006, p. 6)

8.3   Indigenous Language Use Patterns in Sarawak

The ethnic diversity gives rise to great language diversity in Sarawak, which makes a common language of communication crucial. *Dewan Bahasa dan Pustaka* (Institute of Language and Literature) (2006) of Sarawak puts the total number of indigenous languages spoken in Sarawak at 63. One of the goals of the national language policy is to make Malay (the national and official language of Malaysia) the shared language of communication among different ethnic groups. Research suggests that the national language policy has been successful as Malay and the Sarawak Malay Dialect (also referred to as Bahasa Melayu Sarawak) are used for interethnic communication in Sarawak (Ting 2010). This is clearly evident in the friendship and transaction domains where there is frequent intermingling of different ethnic groups.

However, the unexpected outcome of the national language planning is that it is mainly the Chinese who speak Malay in interethnic interactions because they learn it through formal education. Only Chinese who grow up with Malay speakers learn to speak Sarawak Malay Dialect and use it for interethnic communication. The Sarawak indigenous groups often do not speak standard Malay with Malays and other Sarawak indigenous people for daily communication. Instead they speak Sarawak Malay Dialect which carries a Sarawak identity as opposed to Malay which signifies a West Malaysian identity (Ting 2001). The use of either Malay or Sarawak Malay Dialect may augur well for national unity but not for the survival of indigenous languages. The rest of this section explains how formal education, rural-urban migration and intermarriages bring about the reduced use of Sarawak indigenous languages.

Firstly, formal education makes school languages into home languages, thereby reducing the intergenerational transmission of Sarawak indigenous languages. In the present school setting, Malay is used as the medium of instruction in the classroom and students use it to communicate with their teachers. The primary schools, in particular, also enforce the use of Malay and English as the medium of communication among students through a penalty system and school prefects are often put in charge of identifying the errant students. The practice of enforcing Malay or English (less frequent) as the school language prevents the dominant local languages from assuming the role of lingua franca in school. For example, Iban is dominant in Sibu and Sri Aman localities but students are prohibited from speaking Iban within the school compound. The students get used to speaking Malay in school and continue using the school languages at home. In fact, the encroachment of the school language into the home environment was brought up by participants of Wan, Renganathan and Ting's (2014) study. Wan et al. (2014) found that up until the 1960s the Kayan parents were reluctant to send their children to school, and the intergenerational transmission of the Kayan language was strong at that time. One of the informants in Wan et al.'s (2014) study attributed the endangerment of their Kayan language to formal education because the children mixed Kayan with English and Malay, and their parents also started using the school languages with their children.

Competence in school languages is seen as bringing more advantages in academic and working life than indigenous languages. Because of this, school languages are displacing indigenous languages from homes, the bastion of ethnic language use. The likelihood of school languages becoming home languages is even greater for children who go to boarding schools – the geographical distance in Sarawak means that schools are often too far away for daily commuting, and children are placed in boarding schools as early as Form One. They eventually end up using the school language with their schoolmates because their language use is monitored by the school wardens.

Secondly, rural-urban migration results in smaller social networks for the use of the indigenous language. Social network refers to the contacts of friendship and kinship in a shared territory (Paolillo 2001). In longhouses and their ancestral home ground, the Sarawak indigenous languages are widely used. At the present time, there are some Sarawak indigenous communities which are still primarily isolated like the Kejaman who live in Belaga and the Kelabit who live in the Bario highlands. Here, it may be possible to find monolinguals among the older generation. However, the Sarawak Indigenous children who go to school learn Malay and English and tend to speak Sarawak Malay Dialect with friends and shopkeepers from other ethnic groups (Ting and Ling 2012). Malay is used with their teachers and for social media communication. Indigenous languages are reserved for communication in the family and religious domains with others from the same ethnic group.

Rural-urban migration leads to fewer contacts with members of the same indigenous group. For example, the Bidayuh traditionally live in Bau and Serian which is about half an hour to an hour's drive from Kuching but rural-urban migration has occurred. Studies have shown that Bidayuh students (Dealwis 2008) and professionals (Norahim 2010) living in Kuching speak Sarawak Malay Dialect more extensively than their own language because of their ethnically diverse social network. The Bidayuh language is used at home, in the village and in the workplace among Bidayuh of the same dialect group but the languages frequently used with neighbours, friends and colleagues are Malay, Sarawak Malay Dialect and English – regardless of whether they are teenagers, university students or working adults (McLellan and Campbell 2015; Ting and Campbell 2013). In fact, these languages are also used among Bidayuh from different dialect groups (McLellan and Campbell 2015; Minos 2000). The Iban use their ethnic language among themselves but not with other ethnic groups (Coluzzi 2010; Ting and Ling 2012; Wurm 1994) although it is the largest ethnic group in Sarawak, which makes up 29.1% of the Sarawak population.

Thirdly, when the need for a common language arises in intermarriages, the likely choices are standard languages. In Wan et al.'s (2014) study on the Kayan, the informant whose son is married to a Chinese was more open to the use of English and Malay by her grandchildren although she believed that the Kayan language reminds them of their Kayan heritage. She believed that learning English and Malay would benefit her grandchildren because they would leave their longhouse later. Positive attitudes towards indigenous languages are not translated to extensive use of the language, like the Kadazandusun of Sabah (Ting and Tham 2014). Even when

Bidayuh from different regions are married, they may not speak their respective indigenous languages to their children because of linguistic differences, and those with higher levels of education tend to use English whereas those with lower levels of education tend to choose Sarawak Malay Dialect (Ting and Campbell 2007, 2013).

In short, with more of the Sarawak indigenous people living in urban centres and intermarrying with other ethnic groups, the use of indigenous languages will decrease because English, Malay and Sarawak Malay Dialect are more useful alternatives to their indigenous languages.

8.4   Efforts to Preserve Indigenous Languages

Indigenous languages are primarily spoken languages. The effort to preserve indigenous languages in the early twentieth century took the form of producing orthography for the language. Language standardisation which precedes written documentation of the language is a necessary step before the indigenous languages can be formally taught in school. This section documents some of the language preservation efforts for a number of Sarawak indigenous languages.

For the Kayan, the first written literature in the language was produced in the 1970s when the Christian missionaries published the Bible in Kayan (Wan, Renganathan, & Ting, 2014). A bilingual Kayan-English dictionary was published in 1980 by the Sarawak Literary Society after three decades of work on it by Hudson Southwell, a well-known Borneo Evangelical Missionary (see Southwell 1980). Wan et al. (2014) noted that a selection of mammal names in Kayan had been listed in the *Scientific Names of Bornean Mammals* published in 1949. There were also efforts to describe the phonemics of Kayan Uma Pu at Long Atip (Cubit 1964), the grammar (Clayre and Cubit 1974) and the dialectal variations of the Kayan language (Guerreiro 1996).

At the moment, the Lun Bawang also has written literature in their language such as the Lundayeh-English dictionary compiled by Ganang et al. (2006). The main study on Lun Bawang was that of Clayre (1972) who conducted a comparative study of Lun Bawang and Sa'ban languages. Our literature search did not bring up research reports on the language use of the Lun Bawang of Sarawak but Coluzzi's (2010) findings on the language use of the Lun Bawang in neighbouring Brunei shed some light. Ridan, one of the two sites of Coluzzi's data collection, is only eight miles from Marudi, a town in Sarawak. Coluzzi's findings showed that the Lun Bawang people "value and cherish their own ancestral languages and would like to see them officially recognized and used more at school and in the media" (p. 125). The Lun Bawang also felt that their language should be taught as a compulsory subject at school. Compared to the Iban, fewer Lun Bawang were in favour of periodicals in their language but they believed that radio programmes in their language should continue.

There is lack of literacy and media and educational support for Melanau language largely because the language has not been documented (Ting and Ling 2012). Past research has been on the structure of the Melanau language (e.g., Blust 1988; Clayre 1973; Rensch 2012). Of late, advances in information communication technology has made it possible for large corpora of Melanau texts to be stored as the basis for developing machine translation of English and Melanau (Jali et al. 2009; Hassan et al. 2009). There are ongoing efforts for the development of an orthography system using Matu-Daro Melanau by getting the community members to upload Melanau words and audio files of the pronunciation of these words (Chin et al. 2013). The documentation of Melanau is crucial because although all Melanau adolescents can speak the language, the oral domain is being taken over by Malay and Sarawak Malay Dialect due to the close affinity of the Melanau community with the Malay because of religious similarity (Ting and Ling 2012).

Although written documentation of Sarawak indigenous languages are ongoing, so far only Iban has been offered as an elective subject in primary and secondary schools. Bidayuh has only been introduced in a number of preschools as the medium of instruction. Other Indigenous languages in Malaysia have not been incorporated into the national curriculum. In Sabah, the neighbouring Malaysian state on Borneo Island, Kadazandusun has been taught in primary school since 1997 and in secondary schools since 2005. Kadazandusun is also offered as an elective subject in Universiti Malaysia Sabah and the first cohort of teachers trained to teach Kadazandusun through the degree programme offered by *Institut Pendidikan Guru Malaysia* (Teacher Education Institute, Malaysia) (Kent campus, Tuaran and the Keningau campus) will graduate in 2017 (Kadazandusun community 2014).

8.5 Formal Learning of Iban

The earliest recorded efforts to develop an orthography for Iban was that of Howell and Bailey (1900) who produced a dictionary, which was later standardised by Scott (1956). Other Iban dictionaries include Richards' (1981) *Iban-English dictionary,* Bruggeman's (1985) *English-lban vocabulary* and the Sutlive and Sutlive's (1994) *Dictionary of Iban and English* (as cited in Sercombe 1999). Omar (1981) also published a grammatical description of the Iban language.

The written Iban is largely based on the Iban dialect spoken in Sri Aman because the Iban living in the second division of Sarawak had more opportunities for higher education. Those who worked in the Borneo Literature Bureau later were instrumental in efforts to publish Iban books and an Iban magazine called Nendak. Later Borneo Literature Bureau was abolished and replaced by *Dewan Bahasa dan Pustaka* (Institute of Language and Literature) in 1978 (Ibanology 2013).

To begin with, the standardisation of Iban is not as difficult as Bidayuh because of less regional variation. Iban can generally understand one another although they are from different regions in Sarawak. In fact, during the British rule (1946–1963), the Iban language was recognised and even used during the state assembly meetings

(Ibanology 2013). The minimal regional variations have facilitated the standardisation of Iban for literacy development. The standardised Iban taught in school is comprehensible to most Ibans in Sarawak due to the omission of regional and cultural influence (Umbar and Nalau 2005).

During the British rule in Sarawak, Iban was used as the medium of education in interior primary schools where all the students were Iban as early as 1945 (Omar and Teoh 1994). This was for Primary One–Four; in Primary Five and Six, they switched to English as the medium of instruction. Subsequently, Iban (but called "Sea Dayak" then) was introduced in secondary school in 1955 and offered as a subject in the Sarawak Junior Certificate in 1957 (Omar and Teoh 1994). In 1958, the subject was renamed as *Jako Iban* or the Iban Language.

In the same year that Sarawak joined the Federation of Malaysia (1963), the secondary school syllabus and curriculum for *Jako Iban* was approved by the Sarawak State Legislative Council (Omar and Teoh 1994). The developments in the Iban syllabus are as follows:

- In 1982, when the Integrated Curriculum for Primary Schools (Kurikulum Bersepadu Sekolah Rendah, KBSR) was introduced, Iban was taught from Primary Three onwards because the Ministry of Education guidelines required students to be taught their mother tongue.
- In 1985, the translation paper from English to Iban offered at the Lower Certificate of Education was abolished.
- In 1986, the committee for the creation or revision of the Iban Language Syllabus was set up.
- In October 1987, the draft syllabus for the Iban language for Forms One–Three was ready but no textbooks were written yet.
- In 1988, Iban was formalised as part of the national curriculum (Dayak Cultural Foundation 1995) and included in the lower secondary syllabus (Form Three).
- In 2008, Iban was offered as an elective subject in the Malaysian Certificate of Education (*Sijil Pelajaran Malaysia*, Form Five).

The *Unit Bahasa Etnik* (Ethnic Language Unit) under *Sektor Bahasa* (Language Sector) of Curriculum Development Centre oversees the development of the Iban syllabus at the Ministry of Education.

Similar to the Integrated Secondary School Curriculum (*Kurikulum Bersepadu Sekolah Menengah)* for English, the Iban language curriculum is underpinned by the notion of integrating language skills and language content (grammar, vocabulary and the sound system). The suggested teaching and learning strategies are aligned to the learner-centred approach with communicative competence in different contexts as the target of language learning (Ministry of Education of Malaysia 2003).

Based on Ting and Tensing's (2010) analysis of Iban textbooks for Forms One–Five, it is clear that a direct approach is used for teaching the structure of the Iban language. Ting and Tensing reported that most of the grammar items were repeatedly taught in successive forms in accordance with the cyclic approach to the teaching of the language system. The Iban textbooks emphasised word formation, sentence

construction and parts of speech. This approach is reflective of a view of language learning where the building blocks of a language are mastered in parts, and rules for combining them are learnt progressively (Richards and Rodgers 1986).

The number of students learning Iban formally in school has increased over the years. In the year 2010, Iban was offered as a subject in 374 primary schools and 50 secondary schools in Sarawak (Sarawak State Education Department, 24 February 2010). The statistics given by the Sarawak State Education Department in 2015 showed that the popularity of Iban has increased, particularly, in primary schools. The number of students taking Iban as a subject is 20,101 in 1264 primary schools and 16,343 in 52 secondary schools throughout Sarawak. Out of these, 3233 students will sit for the Iban subject at *Peperiksaan Menengah Rendah* (PMR, Lower Secondary Exam) level and 1070 students at *Sijil Pelajaran Malaysia* (SPM, Malaysian Certificate of Education) level. After six years in primary school (Primary One–Six), Malaysian students enter Form One. PMR and SPM are the public examinations at the end of Forms Three and Five, respectively.

By the end of Form Five, students who learnt Iban starting from Primary One would have completed nine years of formal learning of Iban because it was offered as an additional subject starting from Primary Three. According to the curriculum specifications for Iban language, the students should be able to use Iban for daily communication and effective social interaction, besides fostering and preserving the Iban culture and heritage (Ministry of Education of Malaysia, 2007a, b). In fact, Iban with a lot of pride in their language believe that Iban can be used in high domains (Sercombe 1996) and become a language for learning. This is the aspiration of the participants at the Iban Symposium organised by the Institute of Teachers Education, Sarawak Campus Miri, in collaboration with Iban community leaders and Radio Television Malaysia (RTM) ("Nanta: Iban a language for learning," 2014).

The impact of the formal learning of Iban is enhanced by the institutional support for the use of Iban outside of the four walls of the classroom. Students who have studied Iban in school can pursue university degrees in the teaching of Iban in *Universiti Pendidikan Sultan Idris* (Sultan Idris Education University) in Perak and Rajang Teachers Training Institute in Sarawak. The teacher student ratio for the year 2012 in Sarawak was 1:30 for primary school and 1:58 for secondary school, showing that there is a need for more teachers capable of teaching Iban at higher levels (Focus on Iban language 2012).

Among the Sarawak indigenous languages, Iban has the most variety and amount of printed materials. Iban's strong vitality in Sarawak may be attributed to the institutional support for the use of the language, numerical dominance, minimal regional variations and similarity to Sarawak Malay Dialect. It is easy for the Iban people to view their language as a form of lingua franca because they are spread all over Sarawak, Brunei and Kalimantan. It is also obvious to Iban speakers that they can speak their indigenous language with another Iban and expect to be understood. Iban is relatively easier to learn than other Sarawak indigenous languages because it is an isolect of the Malayic subgroup of the Austronesian language family (Sercombe 1999). Adelaar (1992) acknowledged Hudson's opinion that Iban and

Malay are closely related but asserts that Iban underwent a separate development (cited in Sercombe 1999). Jalaluddin et al. (2008) also mention "evidence of similarities in vocabularies from cognates that have similarities in Malay, Iban, Semambuk, Paittan languages" (p. 107; see also Omar and Teoh 1994). When the linguistic characteristics of an indigenous language facilitate learning and usage of the language, it enhances literacy development and language vitality. This is where Iban has the advantage compared to Bidayuh, which will be described next.

8.6   Introduction of Bidayuh as a Medium of Instruction

Bidayuh was already used as the medium of instruction, although in a limited way, during the Brooke regime. In schools established by missionaries, Bidayuh dialects were used in the first few years to help the Bidayuh children adapt to English as the medium of instruction. This practice continued in missionary schools set up even after the third Rajah, Charles Vyner Brooke, handed over Sarawak to the British Empire in 1946 (Nuek 2002; Rensch et al. 2011). Some of the dialects used were the Biatah dialect in the Padawan area, Bukar-Sadong dialect in Serian as well as in Singai and Jagoi areas in Bau (Sarok 1998). After 16 September 1963, when Sarawak joined the Federation of Malaysia, Bidayuh continued to be used as a bridging medium for the first few years to help the Bidayuh children overcome their difficulty in using Malay. However, this practice lapsed after some years.

Efforts at documenting the Bidayuh language began in the nineteenth century. The missionaries and British administrators compiled wordlists of Bidayuh dialects to assist them in understanding the people but their documentation was done in isolation because they catered to different groups. One of the earliest publications was in 1861 by Rev. William Chalmers who collected 3000 entries in English, Sarawak Malay Dialect and Biatah. This was followed by the efforts of other missionaries. These wordlist compilations led to the publication of several primer and textbooks written in the various Bidayuh dialects by the missionaries for use in schools (Rencsh et al., 2011). The Borneo Literature Bureau also published a number of Bidayuh phrasebooks, translated stories and stories in Bidayuh from essay competitions it had organised. According to Rensch et al. (2011, p. 14), the most "landmark publication" and "most substantial work published in Bidayuh" is William Nais' (1998) *Bidayuh-English Dictionary* which contained Biatah words with English definitions published by the Sarawak Literary Society. In recent years, Bidayuh folktales have also been published (Ridu et al. 2001; Ridu 2004). The Bidayuh literacy efforts were complemented by Radio Television Malaysia radio broadcasts which include news, stories, songs and the likes 9 h a day in various Bidayuh dialects.

A milestone in the development of literacy in Bidayuh was the establishment of the Dayak Bidayuh National Association (DBNA) on 22 September 1955 because it paved the way for a standard written Bidayuh language to evolve. DBNA was set up to unite all Bidayuh regardless of dialectal group, preserve and promote the Bidayuh

cultural heritage and identity including the language, and to help in the education of Bidayuh. On 10 August 2003, DBNA introduced a united orthography for the written Bidayuh language, taking account of dialectal differences and distinctiveness of Bidayuh isolects.

In 2006, the United Nations Education, Scientific and Cultural Organization (UNESCO) collaborated with the DBNA to start a Multilingual Education project. This project was part of UNESCO's Education for All programme which seeks to ensure that children of the minority language communities do not lose their own language and culture despite having to learn the languages of wider communication. The Multilingual Education project is under DBNA's Bidayuh Language Development Project. So far, eight teachers have been trained and they also attend refresher courses during school holidays every year.

The goal of the Multilingual Education project in Malaysia was to introduce Bidayuh as the medium of instruction in preschools and kindergartens. The focus on Bidayuh was recommended by the Summer Institute of Language (SIL). On 15 January 2007, Bidayuh was introduced as the medium of instruction in playschools located in Bidayuh villages in the Bidayuh Belt (refer to Fig. 8.1) for toddlers aged 3 and 4 years. The SIL team, DBNA and teacher trainers developed the curriculum and materials. The Bidayuh cultural heritage was transmitted through stories, songs, dances, arts and crafts. The Multilingual Education project also involved the older generation and parents in the teaching of these subjects. Since 12 January 2009, kindergartens using Bidayuh as the medium of instruction have been set up. For Year 2, DBNA developed materials and curricula which reinforced reading and writing in Bidayuh. As in Year 1, all subjects were still taught in Bidayuh but Malay and English were introduced orally. Table 8.2 summarises the information on the playschools and kindergartens set up under the Multilingual Education project to promote use of Bidayuh as the medium of instruction and to slow down loss of Bidayuh.

However, it may not be as easy to introduce Bidayuh as a medium of instruction in primary schools. From their survey, McLellan and Campbell (2015) found that there were concerns on choice of Bidayuh dialect because of the mutual unintelligibility of the Bidayuh dialects. Then there is the issue of perception and attitude of the people towards the language itself. Most elderly Bidayuh preferred their children and grandchildren learn English and Malay to ensure better prospects in finding careers and better future lives. The number of people who prefer Bidayuh to be taught as a subject in school so that the younger generation would not lose their ethnic language and identity is small in comparison. Although the Malaysian Constitution (Article 152) provides for the mother tongue of students to be taught in schools if there are at least 15 students in the class (Kaplan and Baldauf 2003; Kuo 1998; Smith 2003), some members of the Bidayuh community are not in favour of adding another Bidayuh subject for fear of overcrowding the curriculum (McLellan and Campbell 2015). Hence, although Bidayuh has been introduced as the medium of instruction in selected playschools and kindergartens, at higher levels Bidayuh is only used in classrooms unofficially and to explain meaning to the students (Dealwis 2007, 2009).

Table 8.2 Information on the playschools and kindergartens set up under the Multilingual Education project[a]

Location	Variety of Bidayuh spoken by the community	Playschools 3–4 years	Kindergarten 5 years	Number of trained teachers
Benuk	Biatah	One set up in 2007 for 4-year-old children	One kindergarten set up in 2009	2
Sinjok	Biatah	One set up in 2010	One kindergarten set up in 2012	2
Apar	Bau-Singai	One set up in 2007	One kindergarten set up in 2009 but was closed in 2016	2 (1 left)
Pasir Hilir in Lundu	Rara	One set up for children aged 3–6 in 2007		1 (different teachers over the years)
Kpg Seraso, Bau	Bau	One set up in 2016		1
Kpg Bogag, Bau	Bau	One set up in 2016		1
Gahat Mawang, Serian	Serian	One set up in 2016		1
Bunan Gega, Serian	Serian	One set up in 2016		1

Source: Personal communication with DBNA and Summer Institute of Linguistics, Kuching chapter
[a]Note: The Multilingual Education project did not set up preschool for children of 6 years old and they study in either private or public kindergartens

8.7   Educational Implications

In relation to the cases described above, it is more difficult for Bidayuh to become a school subject compared to Iban mainly due to the regional variations in Bidayuh isolects. The Iban language spoken in various parts of Sarawak is intelligible to members of the Iban community because there is little variation, which is why the journey to standardising Iban and introducing Iban as a subject in primary and secondary school was relatively smooth. Students can learn Iban from Primary One all the way till Form Five and sit for a public examination at the end of the upper secondary school education. In comparison, it will be a long time before Bidayuh reaches the same outcome. Bukar-Sadong, Biatah, Rara and Salako speakers have difficulty understanding one another although most can somewhat understand Bau-Jagoi. These areas are within a few hours of driving from one another. This is why Bau-Jagoi is used as the basis for standardising Bidayuh in the Multilingual Education project but there are still contestations from the various Bidayuh groups.

The teachers and other members of the Bidayuh community felt that the material developers should have taken account of the regional differences in Bidayuh and produced different sets of materials for use in different villages so that the children in a particular area learn the Bidayuh isolect spoken in their area. In *Universiti Malaysia Sarawak*, a public university in the vicinity of the Bidayuh communities, the Bidayuh language is taught but instructors are inclined to teach the Bidayuh isolect they speak because they are unfamiliar with the other Bidayuh isolects. In the context of language standardisation, taking account of regional variations in Bidayuh isolects in the formal teaching of Bidayuh will lengthen the journey towards the introduction of Bidayuh as a subject in school.

There is no panacea for the complex challenges faced by the Bidayuh community so long as stakeholders refuse to concede in terms of cultural preservation versus pragmatic needs. It can be a challenge to balance a partnership with so many members' interest at stake but so long as communities are willing to work together to care, share and learn from one another, the likelihood that a partnership will help strengthen the cause remains high. The first step towards this is the introduction of a united orthography for Bidayuh by DBNA in 2003, one that takes account of differences of Bidayuh isolects. However, over the past 15 years, members of the Bidayuh community have changed their aims and focus, developed new ideas about how the language should be taught and what the outcome of the language classes should be, disagreed about the practices and future and this has stalled the progress. Careful attention to these issues and greater cooperation from the beginning might have made a difference in the comfort level, focus and general resources, but its sustainability and circumstances might not have been much affected especially when the learning of both Malay and English happens to be a national agenda.

Organisations like DBNA must continue to help the Bidayuh communities to maintain their language and increase the use among the younger generation of speakers. Organisations like DBNA and *Majlis Adat Istiadat* (Council of Customs, literal translation) in Sarawak can serve as bridge between local volunteers, community leaders, teachers and university faculty and help involve more young Bidayuh ambassadors who focus not only on the language but on maintaining the culture. Collectively, they can actively engage the partners in sharing lessons, training, planning and reflecting, bringing about improved development to preschool teachers and family. While the issue of funding and concerns for generating employment in future might be a factor in the lukewarm response from families, outside funding from organisations is crucial for supporting language maintenance efforts. There is also a need to create greater awareness that the Bidayuh language and culture is able to have a life outside playschool and kindergarten settings.

8.8 Conclusion

In the Malaysian setting, where the national language planning puts Malay in the linguistic repertoire of every citizen, the expected outcome should be multilingual citizens who not only speak their ethnic languages but also Malay and other school languages. However, indigenous languages of smaller speech communities are being displaced, particularly among the younger generation and in ethnically diverse domains of language use. With the domains of ethnic language use shrinking to the family, and interactions involving the same ethnic group in the friendship and religious domains, some indigenous communities have accelerated their efforts to document their language and develop literacy. In the Sarawak setting, the Iban has made the greatest headway in that Iban is taught as a subject in primary and secondary school. The Bidayuh got as far as introducing their language as the medium of instruction in selected playschools and kindergartens through a collaboration project between UNESCO and DBNA (Multilingual Education project). The other Sarawak indigenous languages have some written materials in their languages but they are far from accomplishing the formal teaching of their language in the Malaysian national curriculum. The initial effort in this direction has to come from the indigenous communities and their ethnic associations but research has indicated that not all indigenous groups believe in the usefulness of their language for academic and work purposes. The belief in the heritage value of indigenous languages alone is not sufficient to mobilise community efforts to document and standardise their language, not to mention carrying out literacy activities on a long-term basis. An extreme scenario in the far future is the displacement of indigenous languages by Malay and the regional variety of Malay, which is emerging as the lingua franca among the Sarawak indigenous for interethnic communication.

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Chapter 9
Skills Training and Vocational Education in Malaysia

Ramlee B. Mustapha

Abstract Skills gap threaten Malaysia's future economic growth and productivity. This chapter discusses about the challenges of vocational education and skills training in Malaysia. Even though a number of initiatives have been implemented by the government to reduce the skills gap, the negative perception of the public towards vocational education and skills training continues. Plans to lessen the skills gap include short-term strategies such as innovative training models and medium- and long-term strategies such as significant rethinking of collaborative partnerships between training organisations and industry to provide more flexible workplace delivery. The role of technical and vocational education and training (TVET) is crucial since one way to alleviate graduate unemployment is to retrain the jobless graduates to learn new vocational skills. The crux of the problem with the Malaysian TVET system is that it is school-based. Vocational school teachers themselves often lack industrial experience. Malaysia's TVET system also has other challenges, including multiple certification and quality assurance systems, limited access to vocational education for students with special needs and minority groups, lack of skilful vocational teachers, limited pathway for tertiary vocational education and minimal involvement by the industry. In addition, there is no single oversight body to coordinate the TVET system in Malaysia.

9.1   Introduction

As the Asia Pacific region continues to grow on its projected curve, it could, by 2050, account for more than 50% of the world's Gross Domestic Product (GDP) (as compared to 27% in 2010). Seven Asian nations – Japan, South Korea, China, India, Malaysia, Thailand and Indonesia – are projected to account for 87% of the total GDP growth in Asia, and almost 55% of the global GDP growth between 2010 and 2050 (Asian Development Bank 2011). However, the incidence of those living below the poverty line existing in a number of Asian countries is as high as 40% (UNESCAP

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2011). As one of the dynamic countries in Asia, Malaysia should maintain its economic competitiveness by transforming itself. Malaysia's transformation is underway. The aspiration to stand equal with other developed nations by 2020 and to become a stalwart of education hub especially in the Asian region has made Malaysia as one of the most vibrant countries in the region. The nation's vibrancy lies in its human capital, while the strength of its workforce is dependent on the quality of its education (Mustapha 2013). Thus, education is an important catalyst in developing talented, relevant, skilful and innovative human resources in Malaysia. Education continues to play a vital role in developing and transforming Malaysia for the next decade. The Malaysian Government Transformation Programme (GTP) and Economic Transformation Programme (ETP) were launched in 2010 to achieve the country's high-income status. With the slogan *1Malaysia: People First, Performance Now*, the government promised to make fundamental changes to deliver significant results fast (i.e., *Performance Now*) and to ensure every Malaysian will enjoy the fruits of the nation's development and live in an inclusive and diverse society where they consider themselves, first and foremost, a Malaysian (i.e., *1Malaysia*).

Malaysia, with an estimated per capita Gross National Product (GNP) of USD 8000 is a significant socio-economic force in the Southeast Asian region. Traditionally, the economy of Malaysia was based on its natural resources. During the 1980s, however, the government recognised the need for a balance between resource-based and technology-based industries and started to focus on technology and service industries. In 1991, the nation's *Vision 2020* was launched (Mohamad 1991). The *Vision 2020* is a 30-year plan to "push" Malaysia to obtain a developed nation status by the year 2020 (Mustapha et al. 2008). Malaysia struggled economically during the 1997–1998 Asian financial crisis and applied several valuable lessons to its economic management strategies that contributed to the economy's resilience to the 2008–2009 global financial crisis. Recently, Malaysia claims to enter the era of innovation-led economy. It is recognised that innovation is the "key mechanism" that will help propel Malaysia forward (Kandasamy 2010). Efforts have been made to churn out more innovative human capital such as *MyBrain15*. *MyBrain15* is an ambitious programme that aims to produce 60,000 Malaysian doctorate degree holders by the year 2023 in order to help boost the knowledge (k)-economy. In academia, the National Council of Professors was established in 2010 to fortify academic visibility in Malaysian Higher Education Institutions (Mustapha 2013). However, with the fear of retribution, an "intellectual vacuum" is still entrenched due to the continued reservation of the majority of Malaysian intellectuals to offer public comments, especially if the comments are not in favour of the ruling elites.

But despite the laborious effort to churn out more knowledge workers, the national figure remains low. Malaysia only has 25% of high-skilled workers as compared to 49% in Singapore, 33% in Taiwan and 35% in South Korea (OECD 2011). Research and innovation are also considered lower than other countries due to the fact that Malaysia is lacking the critical mass of cutting-edge scientists and researchers that will enhance innovation. In terms of intellectual property, Malaysia only has 2086 patents in 2010, much lower than South Korea, Singapore, Hong Kong and China (see Table 9.1). The number of published academic research articles by

Table 9.1 Number of patents among selected Asian countries

Country	Industrial design	Trade mark	Patent	Research and Development (R&D) as % GDP
China	141,601	389,115	93,706	1.4
Hong Kong	3035	18,408	4001	0.8
Japan	29,382	97,525	176,950	3.3
Malaysia	1483	27,847	2086	0.6
Singapore	1781	17,737	6286	2.2
Taiwan	n.a	n.a	n.a	2.3
South Korea	39,858	62,443	83,523	3.2

Source: World Intellectual Property Indicator (2010)

Table 9.2 Global competitiveness of selected Asian countries

Country	Global competitive index Rank (score)	Basic requirements Rank (score)	Efficiency enhancers Rank (score)	Innovation and Business Sophistication Rank (score)
China	26 (4.90)	30 (5.33)	26 (4.70)	31 (4.15)
Hong Kong	11 (5.36)	2 (6.21)	4 (5.48)	25 (4.58)
Japan	9 (5.40)	28 (5.40)	11 (5.19)	3 (5.75)
Malaysia	21 (5.08)	25 (5.45)	20 (4.88)	22 (4.65)
Singapore	2 (5.63)	1 (6.33)	1 (5.58)	11 (5.23)
South Korea	24 (5.02)	19 (5.65)	22 (4.86)	18 (4.87)
Taiwan	13 (5.26)	15 (5.69)	16 (5.10)	10 (5.25)

Source: World Economic Forum (2011)

Malaysian academics is also lower than that of Japan, Singapore, Taiwan and South Korea. The lack of innovation among Malaysians is seen as a major setback for the country in its course to be a fully developed nation by 2020. This problem has also hampered the growth of the export sector due to the dependence on low value-added outputs. In addition, studies have shown that university students in Malaysia are lacking the ability to think innovatively (Quah et al. 2009).

Table 9.2 on the one hand shows the global competitiveness of selected countries in Asia. In terms of basic requirements and efficiency, Singapore and Hong Kong lead the ranks. But in terms of innovation, Japan and Taiwan seem to move far ahead of other Asian countries. Malaysia is ranked in the middle, with much room for improvement in order to be more competitive.

9.2 History of TVET in Malaysia

Vocational education in Malaysia was introduced by the British in 1897 to train Malay youths as mechanics or fitters to manage the railway lines (Federation of Malaya 1956; Mustapha 1999; Zakaria 1988). However, it was not until 1906 when

the first public technical school was opened to train technicians for government service that vocational training began to have an impact (Lourdesamy 1972). In 1926, the first trade school was opened in Kuala Lumpur, marking the beginning of public vocational education in Malaysia (Ministry of Education 1967). The trade schools offered courses for fitters, electricians, carpenters, bricklayers and tailors. In 1947, Junior Technical Trade Schools were established to provide a three-year course in machine shop practices, electrical installation, motor engineering, carpentry, bricklaying and cabinet making (Ministry of Education 1967). To qualify for admission into the programmes, students must have completed a minimum level of grade five in a Malay school or grade seven from an English- medium school at that time. This policy continued until these schools were converted into technical institutes under the recommendation of the Razak Report (Ministry of Education 1956). The aim was to provide semi-skilled and skilled workers for the expanding public and private sectors. The report also recommended the expansion of secondary trade and technical education, and as a result, 14 trade schools were constructed that offered a two-year programme for those who completed primary education.

The period 1961–1965 was a transition period, when a number of changes were being introduced to adapt the education system to meet the needs of a rapidly developing nation. Following the recommendation of the Education Review Committee in 1960, the trade schools which provided two-year courses were converted into Rural Trade Schools offering apprenticeship programme for rural Malay youths who had completed six years of elementary education (Ministry of Education 1967). A major change in the vocational education programme was made in 1965 when the comprehensive education system was introduced. The new system, which raised the school-leaving age to 15 years, was designed specifically to change the form and content of secondary-level education, which would offer a greatly expanded and more diversified range of courses. Students would receive general education with a vocational or technical emphasis on industrial arts (woodwork, metalwork, electricity and power mechanics), agriculture science, commercial studies and home science (Kee 1973; Lourdesamy 1972; Ministry of Education 1967; Zakaria 1988).

In 1987, a new vocational education system was introduced. In this system, vocational students had the choice to enrol either in a vocational or in a skills training programme. A vocational education programme requires the students to take the Malaysian Certificate of Vocational Education (MCVE) examination at the end of the two-year programme. Students who opt for the skills training programme must take the National Industrial Training and Trade Certification Board (NITTCB) examination at the end of the two-year training period. The NITTCB was created by the National Advisory Council of Industrial Training to provide common trade standards and to improve the training institutions throughout the country (Ministry of Education 1989). The goal of the vocational education programme in Malaysia was to provide education and training to individuals for specific occupations. The objectives of the vocational education system as outlined by the Ministry of Education (1988) were as follows:

1. To provide the industrial and commercial sectors with manpower equipped with basic skills and knowledge
2. To provide a flexible and broad-based curriculum to meet not only the immediate needs but also the future needs and changes in industries
3. To provide basic education in science, mathematics and languages to enable students to adapt themselves to new methods of work and achieve greater proficiency in their future work
4. To provide the foundation for skills and knowledge on which to build subsequent education and training

In the vocational track, strong emphasis is on practical subjects with the purpose of providing students better preparation, should they decide to continue their higher education in technical colleges or polytechnics without affecting their academic development at the present level. In the skills training track, students are provided more time and emphasis on skills training as required by industry. Upon conclusion of the course, the student takes the NITTCB examination. Opportunities are offered to students to continue the advanced and specialised training after completing the two-year basic skills training programme. Completers of the skills training programme would most likely enter the job market immediately after graduation.

Continued efforts have been directed towards expanding the supply of skilled and semi-skilled workers through increased enrolment in the secondary technical and vocational schools. In 1995, there were 9 secondary technical schools and 69 secondary vocational schools as compared to 58 secondary vocational schools in 1990. In 1996, however, the Ministry of Education made a dramatic effort to promote technical education (Economic Planning Unit 1996). In this regard, 22 secondary vocational schools were converted into secondary technical schools for the 1996 school year. The conversion increased the number of technical schools from 9 to 31 and decreased the number of vocational schools from 69 to 47 (Ministry of Education 1997). At the same time, engineering technology and technical drawing subjects were also introduced in selected academic secondary schools. The initiative was to create opportunities for academic students in technical areas as well as to prepare them to continue their studies in various science and technical disciplines at the post-secondary level (Economic Planning Unit 1996). However, this conversion received considerable criticism, especially from vocational educators, who perceived the change as a reverse trend that would affect the future supply of skilled workers already in severe shortage (Abdul Raof 1996; Mustapha 1999).

Nevertheless, Malaysia places great importance on vocational education as a means of becoming a developed nation to meet the challenges and demands of a high income nation by 2020. Accordingly, vocational education since 2012 has undergone a transformation in its policy, focusing on the diversity of competencies (Jab 2014). In 2011, the Ministry of Education Malaysia has 71 Vocational Secondary Schools (SMV), 17 Technical Secondary Schools (SMT) and 7745 Secondary Schools (SMK). Of the 71 SMVs, 13 were selected to be in the pilot together with one SMT and one SMK to run diploma vocational programme, and

rebrand as vocational colleges (Jab 2014). Since then, the Ministry of Education has increased the number of vocational colleges to 70 colleges spread all over Malaysia.

Technical vocational and skills training are offered at the upper secondary schools to youths between 15+ and 16+ years of age. There are 860 schools offering vocational programmes, including vocational colleges, polytechnics and community colleges (Jab 2014). TVET at post-secondary level is managed by several ministries. In the skills training programme, more emphasis is given to practical work to develop competency in trade skills and enable the students to acquire the Malaysian Skills Certificate (MSC) awarded by the Malaysian National Vocational Training Council (NVTC) after two years of training. In addition, a one-year specialised skills training in specific trades is provided to students with both the Malaysian Vocational Certificate and the Skills Certificate.

Apart from vocational colleges, the community college system also provides a platform for rural communities to gain skills training through short courses as well as providing access to post-secondary education. Since its establishment in 2001, the first 12 pioneer community colleges were constructed. In 2014, the number of community colleges across all states in Malaysia with the exception of the Federal Territory has risen to 91. Community colleges are synonymous with Technical and Vocational Education and Training (TVET) as they provide a multitude of programmes that are based on TVET at certificate and diploma levels. The community college system in Malaysia provides a wide range of TVET courses. Modular courses include accounting, architecture, construction, engineering, drafting, entrepreneurship, hospitality, personal services, multimedia and visual arts. Community colleges in Malaysia are administered by the Ministry of Higher Education under the Department of Community College Education.

In terms of polytechnics, the Malaysian Ministry of Education has established 34 public polytechnics since 1969. Polytechnics are post-secondary learning institutions for technical and commercial training. The main objective is to train secondary school graduates to be qualified technical assistants, technicians, technologists, paraprofessionals and business personnel. Polytechnics are internally accredited by the Ministry of Higher Education and several have received external ISO 9002 certification. Polytechnics are renowned for their ability to provide technological knowledge as well as relevant work experience to students. Presently, all courses offered by the polytechnics are full-time courses and are categorised as certificate and diploma programmes.

All certificate programmes are of two-year duration, while most diploma programmes are of three-year duration, with the exception of the Diploma in Marine Engineering (4 years) and the Diploma in Secretarial Science (2 years). Industrial training, for a period of one semester, is a requirement for all programmes. The purpose of industrial training is to allow students to experience work conditions and to expose them to the realities and demands of the industrial and commercial sectors. Since 1969 when the first polytechnic *Ungku Omar* was established, the polytechnics system in Malaysia has evolved. With 60,840 students in 2009 to 87,440 in 2012 (Sahul Hamed et al. 2010), the polytechnics have expanded to become Malaysia's largest public tertiary TVET provider. In 2010, the Polytechnics

Transformation Plan was launched with these goals (Department of Polytechnics Education 2010):

(1) Enhance the polytechnics as a leading institution in the field of technical training in the semi-professional sector
(2) Strengthen the relevance and responsiveness of polytechnics programmes to the needs of the national economic development
(3) Steer the niche technology areas to produce quality and competitive graduates
(4) Build excellent reputation and brand
(5) Diversify and expand its programmes

Advanced public and private skills training institutions have been established to supply an adequate number of skilled workers to serve the needs of the expanding industrial sector. Various measures were initiated to increase the training capacity through the expansion of existing facilities and the establishment of new institutions. The number of trainees was also increased through the introduction of double-shift training sessions and the implementation of weekend classes. These measures may result in an increase in the output of trainees. To meet the needs for higher skilled workers, especially in the new technology clusters and to take advantage of advanced technology in developed countries, advanced skill training institutes were established with the cooperation of the Federal Republic of Germany, France and Japan. The German-Malaysian Institute (GMI), established in 1992, offered advanced skills training, particularly in production technology and industrial electronics. The GMI, with a maximum enrolment capacity of 450 trainees, produced its first cadre of 57 graduates in 1995. The Malaysian-France Institute (MFI), which began operation in October 1995, had a capacity of 600 trainees and offered advanced courses in areas such as maintenance of automated mechanical systems, electrical equipment installation and welding technology. In 1993, the Japan-Malaysia Technical Institute (JMTI) was established. Several of these institutes were combined to become a new private university known as the University Kuala Lumpur in 2002. As of 2012, the university has around 20,500 local and international students studying at 11 campuses throughout the country, offering educational programmes at professional certificate, diploma, baccalaureate and postgraduate levels in various technical fields such as Automation and Industrial Maintenance, Mechatronics, Chemical and Bioengineering, Naval Architecture, Aviation Technology, Telecommunication, Medical and Allied Health Sciences and Entrepreneurship.

In terms of dual skills training, the Malaysian government has taken an important step to implement the National Dual Training System (NDTS) in 2005. Based on Germany's Dual System model, the NDTS is to produce knowledge workers (k-workers) under a comprehensive training system to meet the prevailing and future requirements that include all job levels for every economic sector. A knowledge worker is someone who should have at least one technical competency (e.g., automotive mechatronic, tool making and steel fabrication), several social skills (e.g., communication skills, teamwork and self-discipline), competency in some learning methodologies (e.g., information communications and technology (ICT)

skills, information searching skills and consultation with experts) and several social values (e.g., diligence, meticulousness and patience) (Ministry of Human Resource 2008). The most distinguishing feature of the NDTS compared to other skills training programmes is the requirement for coaches and trainers to integrate human and social skills as well as learning and methodological skills explicitly in the curriculum. The integration of social skills and social values in NDTS curriculum is a new value-added component, which is required by workers in the present competitive world (Mustapha and Rahmat 2013).

However, in general, employers, especially those who employed vocational graduates, were not fully satisfied with graduates' personal quality or employability traits (Bakar and Hanafi 2007). Research has also shown that employers indicated that Malaysian graduates, especially from the vocational and technical tracks, are well trained in their area of specialisation but lacked the soft skills needed by the industries (Mustapha 1999; Mustapha and Greenan 2002). Due to this, the NDTS curriculum has placed social skills as an essential part of its training system.

9.3   Demand and Supply for TVET Graduates

Skilled workers are in a great demand all over the world (Cameron and O'Hanlon-Rose 2014; Oketch et al. 2009). Competent employees are in demand because they are critical in ensuring the productivity of a nation. Strategies are continually being thought of and implemented by governments to reduce the skills gap. In fact, the shortage of skilled labour is detrimental not only to the companies which are experiencing the shortage, but shortage also affects the competitiveness of a country. Plans to lessen the skills gap include short-term strategies such as innovative training models and medium- and long-term strategies such as significant redesign of skills sets, collaborative partnerships between training organisation and industry, providing flexible workplace delivery (Richardson 2007).

The skills gap could be reduced by enhancing skills matching via choosing relevant TVET programmes. According to Richardson (2007), TVET plays a critical role in matching the skills wanted by employers with the skills of workers. The fluidity of the workforce has pressured the education and training system to respond creatively to the changing needs of the job market (Mustapha 2004). TVET systems around the world are under enormous pressure to meet the demands of the employers in terms of providing relevant graduates to the market (Mustapha 2004). Vocational practitioners are also expected to develop innovative models that would assist them to train the trainees with futuristic and unconventional domains. Additionally, rapid changes in technology and in work organisation require workers to have multiple skills and the ability to adapt rapidly through continuous learning (Oketch et al. 2009; Mustapha 2013).

The importance of TVET policies for skills, workforce development and lifelong learning has increasingly gained international attention as a vehicle for active citizenship, social and economic participation and inclusion (ILO 2008). Focusing on

some of the TVET features in Southeast Asia, for instance, in Indonesia, it is found that there has been a gain in momentum in the TVET sector in the last decade, especially since the Indonesian Ministry of Education adopted a long-term plan to enhance access to TVET. The government also plans to increase the ratio of students enrolled in TVET secondary level to those in general secondary schools to 70:30 in 2015 (Paryono 2011). Consequently, many general secondary schools have been converted to vocational schools. The main reason behind this shift is that many secondary school graduates lacked basic vocational skills to be employed.

In Malaysia, since 2011, almost all vocational secondary schools have been upgraded to vocational colleges (Jab 2014). In the Philippines, TVET at the secondary level has been formalised and strengthened by improving its infrastructure, curricula, programmes and marketing. The vocational schools that were previously considered as dead ends have been recognised to benefit students by enabling them to obtain better employment and further education opportunities. In 2009, more than 94% of the graduates of the vocational schools were reported to gain employment (Teo 2010). Cambodia, Lao PDR, Thailand and Vietnam have also strengthened their TVET systems. Thailand, where TVET systems are under the Office of Vocational Education Commission (OVEC), is also very active in promoting TVET. Thailand aims to increase student enrolment at the secondary TVET level (Chiangmai 2007). Vietnam is also vigorous in promoting TVET at the post-secondary level and has created national quality standards in areas like hospitality and tourism.

With Malaysia's *Vision 2020* focusing on education and training to build holistic human capital, a critical strategy to increase students' enrolment in TVET especially in post-secondary education and in particular among females is needed. The expansion in tertiary enrolment has been fuelled by the passage of the Private Higher Educational Institutions Act, 1996 (Act 555) which, in liberalising private tertiary education, led to a significant increase in tertiary education student enrolment in private higher learning institutions. This expansion has witnessed the emergence of many forms of transnational education (TNE), including branch campuses, joint and franchised partnership programmes between Malaysian private institutions and foreign universities (Cheong et al. 2015). Notwithstanding, Malaysia still has a small percentage of its workforce who are highly skilled as compared to other advanced countries, and additionally, a smaller portion of its labour force with tertiary education. Concern has been expressed regarding the quality of graduates especially from public tertiary education institutions, who were reported to be not up to employers' expectations due to lack of certain critical skills (Bernama 2012; The Star Online 2012). This perception has been exacerbated by the evidence of graduate unemployment. The Economic Planning Unit reported that tracer studies by the Ministry of Higher Education revealed that up to 25% of graduates remained unemployed six month after they graduated (EPU n.d.). This issue has been viewed seriously by the government to initiate training/retraining programme for unemployed graduates.

The TVET role is crucial since it is one way to alleviate graduate unemployment, and the government can play a critical role in developing the TVET sector. Advanced

countries like Japan and Germany with strong TVET programmes have succeeded economically due to their substantial number of skilled workers. Malaysia has multiple ministries engaged in the TVET sector, but are characterised by poor interministry coordination (Cheong et al. 2013). TVET programmes are also perceived as redundant while policy pronouncements have also not been matched by implementation, with measurement of programme impact as more focused on the funding allocated (Cheong et al. 2013). The public sector's dominance of TVET leaves limited room for non-government agencies and private TVET providers to contribute actively in TVET training. There is also a weak link in public-private partnership (Mustapha 2013). Finally, society's negative perception towards the TVET sector has also been intensified as poor achievers in academic subjects are channelled into the programme.

9.4   TVET Teacher Education

Paryono (2015) examined TVET teacher education and training in nine Southeast Asian countries, including Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand and Vietnam. He found a number of factors that could influence TVET teacher education such as organisational change, technological development, labour market development, reform and changing political priorities, and internationalisation. As a consequence, TVET teacher education differs in each of the nine countries due to their unique environments. Regardless of the diversity of TVET teacher education in these countries, there are two salient modes of preparing TVET teachers in the participating countries: through universities and through open recruitment of experienced members of the workforce or practitioners. Cambodia, Indonesia, Malaysia, Myanmar, Thailand and Vietnam under MOET prepare their TVET teachers primarily through university or training institutes (Paryono 2015).

The Malaysian TVET system is school-based (Mustapha 2013). Vocational school teachers themselves often lack industrial experience. School learning is not well integrated with the workplace practices. The practical skills training facilities in school are often outdated and may no longer be used in industry. One way to solve this problem is to develop partnership with industry and trade. Modern apprenticeship or "dual system" might be a viable solution. Thus, the government, through the decision of the Minister Council in May 2004, has agreed to implement the National Dual Training System (NDTS). The NDTS was introduced to provide the needed comprehensive training to produce K-workers. The approach involves the delivery of training in two places, namely 30% of the total training on basic skills and theoretical knowledge being taught in the training institute, while the remaining 70% on the practical and hands-on training being delivered in the workplace in the industry. The most distinguishing feature of the NDTS compared to other skills training programmes is the requirement for coaches and trainers to infuse or integrate social and learning skills, in addition to technical skills.

Teacher quality is also an issue in the sector and it is expected that by the year 2020, all teachers in Malaysia (broadly defined) must possess a baccalaureate degree before they can join the teaching profession. This is to ensure that all teachers pass the "quality criteria" before leaving the university or teacher training institute. Malaysia's TVET system is also imbued with other challenges, including lack of effective coordination, poor sharing of resources and articulation within the system – reflecting inefficiencies in the system.

Given the issues raised in the TVET sector here and in the previous chapters, the next section will detail recent government policies in the sector as highlighted from both the 10th and 11th Malaysia Plans.

9.5   Recent Policy Initiatives in the TVET Sector

As stated in the 10th Malaysia Plan (2011–2015), mainstreaming and widening access to quality TVET was put as a priority to address the industry needs for skilled workers. The Ministry of Education also undertook several initiatives in order to alleviate the negative and stereotypical image of TVET. These efforts resulted in the increase of SPM leavers pursuing TVET from 25% in 2010 to 36% in 2013. But the industry is still not fully satisfied with the quality of TVET graduates. So further in the 11th Malaysia Plan (2016–2020), the focus is on transforming TVET in order to compete in a global economy. One of the main strategies is to employ industry-led approaches to produce relevant human capital especially in the knowledge-intensive sector. Furthermore, the Malaysian Board of Technologies (MBOT) is expected to be established to recognise the professionalism of TVET practitioners which will enable them to be on a par with other professionals.

Despite the efforts to mainstream TVET in Malaysia as implemented in the 10th Malaysia Plan, challenges remain, namely uncoordinated governance, fragmented delivery, lack of recognition for technologists and competency gaps among technical instructors. For example, lack of industry input in curriculum design has resulted in mismatch of skills required by industry and the competencies possessed by the graduates. TVET delivery is fragmented as TVET programmes were offered by various ministries with no common evaluation system to assess the students' competencies. The lack of recognition for vocational graduates who worked as technologists or technical personnel has also fortified the problem. Finally, the presence of a substantial number of vocational instructors who are not keeping abreast of the latest knowledge in the industry has evidently affected the quality of the country's TVET system.

Hence, in the 11th Malaysia Plan, the focus is on transforming the TVET system by employing an industry-led structure to create relevant skilled workers. This approach is hoped to reduce possible mismatch. In the supply side, establishing a single system for TVET accreditation in order to improve the TVET rating system is considered crucial. The plan also suggests a holistic transformation by reforming

the TVET curriculum, mainstreaming the National Dual Training System, eliminating low-impact programmes, optimising resources for better return of investment and developing high-quality instructors to improve delivery. Other critical strategies include promoting TVET as a pathway of choice, increasing the employability of TVET graduates and expanding accessibility of TVET graduates to higher education by promoting bridging programmes. Finally, the government and the private sector need to recognise technologists as professional workers.

These initiatives and strategies are designed to create adequate skilled workers in order to drive the nation's economic growth with the country's target of 35% or 5.3 million skilled workers by year 2020. There are calls on the need to strengthen the quality and delivery of TVET programmes to improve the employability of the graduates and to enhance its branding to attract more students to join such programmes. Among the latest moves to promote this sector is to put in place a proper recognition of skills qualification in public service schemes, specifically for the Malaysia Skills Diploma (DKM) and the Malaysia Advanced Skills Diploma (DLKM) awarded by the Skills Development Department. In addition, the government is committed to provide financial assistance to those who wish to improve themselves through upskilling, reskilling and multiskilling programmes. The Skills Education Fund Corporation (PTPK) will provide a loan depending on the field study. In this way, it could attract students to select TVET as a preferred choice of career pathway.

9.6 Challenges

One of the biggest challenges of the twenty-first century is the creation of jobs. In the next 15 years, more than 700 million young people will enter the labour force, of whom 300 million will come from Asia (Sheng 2011). Unemployment in Malaysia is still below 4%. With the advent of global recession, the need for strong human capital has never been so critical. Literature has shown that several Asia Pacific countries, including Malaysia, have spent relatively low percentage of their GDP on ICT infrastructure and R&D. As a result, there is a low percentage of skilled and knowledge workers in the population such as scientists, engineers and ICT specialists (Mustapha and Abdullah 2004; Reynolds et al. 2002). In addition, the level of innovative R&D is also low among these countries which resulted in proportionally lower numbers of technopreneurs and technoprises. Further, the percentage of graduates who are unable to secure proper jobs posed a challenge to the nation. Thus, the education and training system has to gear itself to meet the demands of the new economy.

However, with less than 30% of Malaysians pursuing this field, this remains a real challenge in producing knowledge workers able to support an innovative

economy (Mustapha 2013). In addition, Malaysia also lacks the critical mass of research scientists and engineers that are much needed to drive the K-economy (Mustapha and Abdullah 2004). In order to achieve the *Vision 2020* goal, the ETP identifies eight strategic reform initiatives (SRIs) to propel transformation and growth, namely, among others, creating a quality workforce, instilling competition, building knowledge-based infrastructure and ensuring growth sustainability through innovation.

Thus, a quality workforce is needed to meet the new industry requirements. Fresh graduates need to embrace a different mindset of innovation, creativity, invention and risk-taking approach. Additionally, the track to the TVET sector should be rebranded to encourage more students to consider this sector. However, in TVET, some of the issues and challenges still remain. These include (a) multiple certification systems and multiple quality assurance systems, (b) lack of coordination with other public vocational training bodies, (c) limited access to vocational education for students with special needs and minority groups, (d) need for skilful vocational teachers, (e) limited pathway for tertiary vocational education and (f) limited involvement by the industry (Ismail and Zainal Abiddin 2014; Pang 2011; Zain 2011). These issues and challenges are summarised in Table 9.3.

9.7   Conclusion

To advance Malaysia into the forefront of knowledge, investment in human capital is critical, as the knowledge-economy demands creative, innovative and knowledge-able human resources. There is a strong link among TVET, innovation and economic robustness of a nation. Innovation is key to social and economic progress. Innovation-led economy has changed the economic scenario of the world, including Malaysia. The Malaysian government has introduced the GTP and ETP as road-maps to chart the nation's path towards achieving *Vision 2020*. The transition from a manufacturing to technology-based economy calls for higher skilled and innovative workforce that can adapt rapidly to changing job requirements.

The Malaysian leadership has expressed their commitment to regain Malaysia's earlier growth and reposition the country as a high-income economy. However, the real litmus test lies in the attainment of full employment and sustaining economic growth in the global economy. For the innovation culture to flourish, granting flexibility and autonomy is a way of moving forward. The Malaysian TVET system needs to focus on improving its attractiveness to prospective students, providers and industry players, in additional to raising the quality of its teacher standards. To gain international recognition, the development of transnational standards for TVET with a multidisciplinary and industrial orientation is critical.

Table 9.3 Summary of issues and challenges of TVET in Malaysia

Curriculum and multiplicity of ministries: Provision, certification and standards	Curriculum is the pillar of TVET training. TVET provision in Malaysia is undertaken by different agencies and organisations, both public and private, with a multiplicity of certification, standards and curricula. Various TVET providers often result in overlapping of courses and institutions, as well as creating confusion to both the students and employers.
Negative mindset and poor perception and recognition of TVET	Pang (2011) discussed that TVET in Malaysia has always been considered by the public as the career choice for the less academically qualified, with the impression that TVET caters for school dropouts, rather than serving an important strategy to train skilled workers. Further, many employers do not recognise the certification. This is also supported by Zain (2011) where too much attention and resources is given to "academic" rather than "vocational" education. The same goes for recognition and career.
High cost of technical education	The cost of setting up a TVET course is relatively high with the provider needing to consider the maintenance of required equipment for such programmes. Learning materials used at one-off periods also add to the costs.
Demand-Supply Mismatch	The current TVET programmes in Malaysia are largely supply-driven and exhibit a demand-supply mismatch. Zain (2011) reported similarly, which results in unfilled employment vacancies in the industry.
Lack of efficiency and quality	In general, TVET provision in Malaysia is still largely concentrated on lower level skills qualification whereby more than 70% of graduates are at Malaysian Skills Certificates (MSC) Level 1, 2 and 3. Although TVET institutions are running at high operating costs, many are still unable to operate at full capacity. Lack of enrolment in the sector should be addressed and programmes catering to higher level skills should be encouraged.
Homogeneous participation in TVET	Another issue faced by the TVET sector in the county is its homogenous enrolment. Given the multi-ethnic composition of Malaysia (i.e. Malays, Chinese and Indians), it is vital that there is fair representation of each group in the sector. Thiruselvam reported that Indian youths make up less than 3% of the total intake of TVET places offered in the country. The overall participation is dominated by the Malays.
Attrition and completion issues	Attrition and completion rate in the TVET sector is a concern. Although the numbers are not significantly large, students still fail to graduate on time while others drop out completely. There is need to improve completion rates. The issue of quality and the supervisory system should also be taken into account.

Sources: Majumdar (2011a, b), Pang (2011), Zain (2011)

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Chapter 10
Reflections on the State and Future of Malaysia's Education

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Abstract This chapter attempts to capture the landscape of Malaysian education through brief essays by individuals who have been involved with education in the country at various levels. Ibrahim Bajunid and Ghauth Jasmon are known leaders in higher education. Terence Gomez and Hwa Yue-Yi are most concerned about policy issues, albeit from very different lenses – Terence as a seasoned political economist, and Yue-Yi as a budding analyst who has spent time as a teacher in Malaysia's classrooms. Edmond Yap and Dzameer Dzulkifli bring in their perspective from the front lines, as their respective non-governmental organizations (NGOs) try to chip away at the persisting challenges within the Malaysian education system. Roselina Johari Md. Khir takes a look at Malaysia's education horizon as an educator-playwright-actor.

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They were asked to reflect about the state of Malaysia's education and where it is heading in the future. The final chapter presents their essays, followed by a discussion of their reflections in light of Malaysia's stated vision for its educational system.

10.1 Towards an Eternally Successful Higher Education Development Agenda in Malaysia

Ibrahim Bajunid *has held numerous responsibilities in national and international higher education institutions. He is the recipient of the National Educational Leadership Award, the highest Educational Leadership Award in Malaysia.*

This essay assumes that the reader is familiar with the basic facts of Malaysian demography, politics, economics, culture and educational history. This essay identifies several strategic issues regarding the Malaysian higher education system and universities, as they strive to be the best example of the "eternally successful organizations" regardless of whatever weaknesses in governance, leadership, administration, teaching and learning, research, knowledge generation and dissemination, contributions to society and humanity.

The strength of higher education in Malaysia is founded on its mainstream feeder school system. From its earlier years of independence, the curriculum of the Malaysian school system and its public examinations were based on the Cambridge Examinations Overseas School Certificate. Universal education provided from the first decades of independence was extended to the democratization of higher education articulated in the 1990s. By the early twenty-first century, e-learning and lifelong learning, information communication and technology (ICT) literacy for all, were accepted as integral aspects of the education system from the early years through higher education and the world of work.

The records of accomplishment of strengths of the higher education system and institutions include the centralized system of government with its legacy of robust strategic development plans, which includes deliberate plans and directions for higher education development. Higher education benefits from the philosophies, policies and practices and planning of the public services in Malaysia as well as contributions from the private as well as non-governmental sectors. Higher education institutions grow in the cultural context of passion for knowledge, truth-seeking, teaching, research and contributions to society upheld by Asian cultures as well as the western world cultures. Initially developed based on the elitist Oxford-Cambridge tradition, and currently higher education institutions have expanded links with top global universities in different fields of expertise.

During the last 60 years, Malaysian higher education has nurtured three generations of mature and excellent academicians, teachers and researchers. There is a beginning of passion for inquiry into indigenous knowledge traditions and indigenous knowledge creation, beyond openness to the transfer of mature universal knowledge from foreign knowledge sources. Women's participation, enrolment,

leadership and networks in all areas of higher education are remarkable, incrementally to the best aspirations of women's empowerment. Malaysian membership in the Association of South East Asian Nations (ASEAN) creates regional benchmarks and strategic advantages for higher education in Malaysia. Private higher education brings the best of their policies and practices as well as international networks and benchmarks to higher education in the country. Malaysia has become the preferred choice (eighth globally) for higher education for foreign students, particularly for undergraduate degrees in English in private universities and post-graduate degrees in public universities. There has been the establishment of dynamic institutions, such as the Malaysian Qualifications Agency (MQA), the Professorial Councils, Academic Awards, Council of Vice Chancellors, in relevant areas of leadership, supportive of and with focus on quality standards and impactful contributions. There is good self-correcting alignment of institutional goals of universities with economic and social goals captured aspirationally and inspirationally in the articulated learning outcomes and of student attributes.

As the higher education system and institutions develop and mark out the landmarks of their successes nationally and globally, several fundamental recurring and newly emerging challenges remain. Parochial origins, ethnicity, academic-discipline backgrounds remain as discriminatory factors in the appointments of leaders at top levels of higher education system and institutions. Authentic enculturation of the continuous improvement mindset, beyond International Organization for Standardization (ISO) and other quality systems protocols, has not occurred. There is over focus on the agenda of global rankings, which creates blind spots in areas of university philosophy, policies and practices. The best laid out national and institutional strategic plans are not faithfully implemented because of lack of focus, incompetence or absence of collective will. The community of scholars are often trapped in academic silos and lack the capacity or will to collaborate in multidisciplinary modes. Ineffective succession planning and multi-disciplinary knowledge management jeopardize the contributions by the next-generation academicians to the next level of excellence. When there is academic diffidence, there is no specific passion or mission for indigenous knowledge creation.

There is limited inclusiveness in policy regarding students and staff in higher education institutions because of race, religion, language and political affiliations. The needs of marginalized, disadvantaged and physically challenged individuals are not effectively addressed. There is limited and selective scope in the internationalization policy of students and staff. There are scholars who are proxies of moral and political policing engaged in banning books and other materials, and curtailing freedom of speech and thoughts. Risk management, income generation, issues of students' rights and care for international students remain matters of concern.

The dilemma of higher education and society itself are poignantly noted when an academician from the religious elite makes the argument that, "*no institution has the right or credibility to evaluate religious programmes because our knowledge base is Revealed Knowledge and we are concerned with and focused on the Hereafter.*"

In a secular educational system linked with the dominant global secular education systems with universal indices of autonomy, transparency and quality cultures, such underlying philosophical stances and altercations have neither been publicly acknowledged nor been debated and discussed, as yet. The agenda to sustain Malaysian higher education in world-class league depends on successful leveraging on the existing robust fundamentals and transforming weaknesses into value-added strategic fundamentals.

10.2 The Future of Malaysia's Public Universities

Ghauth Jasmon *is the former Vice Chancellor of University of Malaya (2008–2013). He was the founding president and CEO of Multimedia University for 11 years. He also initiated the formation of two other private universities in Malaysia.*

Universities in Malaysia, especially the public-funded institutions, are facing unprecedented pressures. In some ways, the challenges faced by Malaysia's universities are not that different from many universities around the world. Public funding for universities has been reduced significantly and at the same time competition from private and more innovative universities has increased tremendously. The legacy system, that was once a pillar of strength, has now become overly rigid and bureaucratic, and as a result unable to change and adapt to the changing higher education sector. Above all else, running public universities has become extraordinarily expensive. Yet, there are local issues that make the Malaysian situation particularly challenging.

In the recent federal budget, the budget allocation for 19 of the 20 public universities was reduced. Some, such as Malaysia's oldest university – University of Malaya – had to cut its operating 2016 budget by 27% or Ringgit Malaysia 175 million. To make matters worse, the national higher education loan programme (known as *Perbadanan Tabung Pendidikan Tinggi Nasional* in Malay) that services millions of student borrowers is also struggling, leading to recent cuts in the size of loans and the number of loans it can handout. These cuts have come at a time when Malaysia's universities are facing significant pressure to improve their academic, research and employability reputation. The *Malaysia Higher Education Blueprint*, released in 2015, set numerous measurable targets to be achieved by 2025, including improving tertiary enrolment rates from 36% to 53%, increasing international students by more than 100% to 250,000 and placing two universities in the Top 100 in the Quacquarelli Symonds (QS) World University Rankings (currently, none of the universities are ranked at this level).

The *Blueprint* also set in motion the plan to grant more autonomy to public universities. But in turn, public universities must begin to raise funding of their own and not rely entirely on government funding. Financial autonomy is uncharted water for public universities in Malaysia. For as long as they have operated, public universities have come to expect and depend on public funding to carry out their academic and research functions. They have never really had to generate their own funding, at

least not at the large scale that is required today. If the leadership at these universities is not able to find sustainable solutions to this challenge, Malaysia's public universities are at a real risk of regressing.

The transformation of public universities must begin now. The change must begin at the top, perhaps especially so because Malaysia's higher education administrative structure is still very hierarchical and very much government-controlled. The selection of the university's top management and board members must be made by an independent and well-informed committee, and not by the long-standing political appointment process – led namely by the Minister in charge of the Ministry of Higher Education. The Vice-Chancellors, Deputy Vice Chancellors and the Board Members must be proactive in assuming the responsibility of meeting key performance indicators. In this age of financial pressures, this must include the responsibility of creating new revenue streams badly needed by the university.

The members of the top management and board members must be visionaries and more business-minded and risk-takers, and be willing to advocate and push for change whenever necessary. They must be willing to take on well-meaning but ultimately suffocating institutions within the higher education sector hierarchies such as the Malaysia Qualifications Agency (MQA), whose rigid accreditation structures, rules and procedures make it difficult for universities who want to be active in revamping and introducing unique and innovative programmes. They must also be committed to creating a more effective platform to take research from concept to commercialization.

The university leadership must be also helmed by experienced, quality academics with an entrepreneurial track record. I say this because they are the ones who must build the new financial capability of the university, and they must be able to do more with less. They are the ones who must provide the vision to create means for new revenue streams and operational effectiveness. Public universities have a very limited window in increasing traditional revenue streams such as tuition fees. The opportunities can come from their rich research and knowledge competencies as well as their capabilities in anticipating future problems and solutions. They can also come from joint ventures between universities, governments, corporations and more critically the private sector. For example, the Chulalongkorn University in Thailand owns many commercial projects and properties to account for a large part of their operating budget. Mahidol University has five private hospitals, which also in turn contribute towards medical tourism in Thailand. These two universities began their business ventures some 40 years ago, and today rely on the Thai government for only 30% of their operating budget. In these terms, they are well ahead of any Malaysian public universities.

Universities must also champion for a system that upholds meritocracy and rewards the most qualified. This way, universities can attract and keep the finest staff and students. The top-performing universities should receive more funding, and the best academics should be made leaders – Vice Chancellors or Deputy Vice Chancellors, as well as members of the University Board. The best researchers and academics should also receive better remuneration. In this regard, universities must be pushed to create their own autonomous scheme of service under the principle of

university autonomy. Currently, the university service scheme is largely dictated by a federal civil service agency and no change is in sight due to the lack of courage and creativity on the part of the university leadership, especially the university board, to innovate and go beyond. When one takes a good look at the performance of the public university boards, one cannot help but conclude that they seem to be more likely to act as a vanguard of the status quo rather than to act as a catalyst of change to achieve higher performance and global competitiveness.

When we lay these foundations, then universities can do what it does best: learn, teach, research and innovate.

10.3 Higher Education in Malaysia: Fundamental Problems not Addressed

Edmund Terence Gomez *is Professor of Political Economy at the Faculty of Economics & Administration, University of Malaya. He specializes in state-market relations and the linkages between politics, policies and capital development.*

When the global financial crisis occurred in 2008, it exposed the repercussions of a neo-liberal model of development. Neo-liberalism, after its introduction in the 1980s, with its emphasis on, among other things, market-driven growth, deregulation and privatization (Harvey 2005), had had serious implications on the education sector. The corporatization and privatization of tertiary education, a policy first actively pursued by Margaret Thatcher in Britain, were adopted by Mahathir Mohamad, the then prime minister of Malaysia (1981–2003). As in Britain, Mahathir upgraded polytechnics to universities. This transition contributed to a proliferation of public universities offering academic degrees as opposed to institutions that provided technical training that was equally crucial for creating a workforce required by an industrializing economy. Apart from this, from the early 1990s, government licences were awarded to establish private universities. These institutions included Malaysian colleges that were upgraded to universities. Subsequently, British and Australian universities were allowed to establish foreign campuses in Malaysia.

The 2008 crisis exposed Malaysia as an economy that was stuck in a "high-middle-income trap" (Hill et al. 2011). A review of the factors that had contributed to this problem drew attention to the government's mode of developing public and private universities. One core concern was the poor quality of research and development (R&D) that could contribute to technological upgrading by domestic firms. The crisis also drew attention to the poor quality of human capital: the number of Malaysian graduates may have increased substantially but they were evidently ill-equipped with skills that would allow them to contribute to a rapidly modernizing high-technology economy. Important questions about this human capital problem soon emerged: Can students think? Are they creative? Can they communicate coherently, verbally and in writing? These questions highlighted structural problems in educational institutions and drew attention to inadequacies in the nature and quality of the curriculum in universities.

The government responded to these problems by issuing its *Malaysia Education Blueprint 2015–2025 (Higher Education)*. However, this *Blueprint* hardly addressed the issues exposed by the 2008 crisis. The *Higher Education Blueprint* remained extremely neo-liberal in orientation, focusing on serving the needs of business and creating students with entrepreneurial capacity. No attention was given to the history of the evolution of tertiary institutions and their curriculum – two core issues that had to be thoughtfully and critically reviewed. While public universities were evidently in a state of decline, hardly any major reforms were proposed. There was no in-depth review of the curriculum, of the reforms required to keep it abreast with a modern world in constant and rapid transformation.

The curriculum was discussed in the *Higher Education Blueprint*, but insufficient attention was paid to promoting thinking and skills. This was important because of what had happened in history, particularly after the 1970s. With the government's emphasis then on science and technology (S&T) and mathematics, funding for the humanities and social sciences had been reduced. This issue had to be reviewed as the form of tutelage was now changing with much more focus on inter-disciplinary teaching. In the public domain, discussions were rife about promoting the liberal arts as a means to create critical-minded students with a creative bent to tackling problems and complex issues. There is a clear need to promote vocational and technical training given that not every student is academically inclined and such skills are in short supply in the economy. Instead, the nature of university courses that are being developed were of the sort that would equip students with business skills so that they could become entrepreneurs, initiate start-ups and manage companies. Catch-all courses were developed to get students from the business and the public sector to pursue post-graduate courses, now a major source of revenue for universities. These were not good methods to develop the curriculum or to teach university students. These issues draw attention to fundamental questions not addressed in the *Higher Education Blueprint*: What is the role of universities? What is the purpose of research? What is the role of academics, researchers and public intellectuals?

As for institutional problems, the government's long-standing focus on creating universities – public, private and public-private joint ventures – was not reviewed. A key problem with this desire to create universities is this: Does Malaysia have sufficient well-trained academics, equipped with skills to teach the young as well as undertake sound scholarly research? This question raises further concerns about the quality of tutelage by academics. Interestingly, while debates proliferate about the quality of education offered by universities, students are mired in deep debt as the fees charged by these institutions, including public ones, continue to escalate.

When confronted with the need to redress serious structural and curriculum problems in tertiary institutions in 2008, the government did not use this opportunity to thoughtfully deal with these matters. This was a missed opportunity that will have major repercussions on the economy. Meanwhile, a major disservice is being done to the young who enter Malaysian universities as they will not be privy to high-quality education that they expect to receive. Until these issues are dealt with substantively, Malaysia will continue to struggle on the global stage.

10.4 Towards Coherent Policy Making and Implementation in Malaysia

Hwa Yue-Yi *is a fellow at Penang Institute with a research focus on education policy. She taught in a low-performing school for 2 years through "Teach For Malaysia."*

In some sense, primary and secondary education in Malaysia is doing well. We have the basics: school buildings filled with textbooks, students and teachers. Primary school enrolment is universal, secondary school enrolment exceeds 90% and the student-teacher ratio is an impressive 12:1. Recent years have seen increasing public attention to education. A number of celebrated practices – such as professional learning communities, student portfolios and virtual learning environments – have been introduced into national policy. The proportion of gross domestic product (GDP) invested in education has long been above the global average.

However, the advocacy has been insular, the new policies fragmented and the spending inefficient. Our education system seems to have plateaued.

Whether or not the quality of education rises depends on a range of factors. One of the most fundamental, and most neglected, is the degree of alignment in policies, institutional procedures and shared goals, across stakeholders in the education system. Policy innovations and resource investments are, on their own, insufficient. If different components of the system are trying to move in many directions at once, Malaysian education will not get anywhere.

One area hampered by these misalignments is education policy planning, which is notoriously piecemeal. Policy changes are more likely to follow the re-shuffling of Cabinet than the school calendar and to pay more attention to an alphabet soup of buzzwords than to prevailing classroom circumstances. Popular media has its own catchphrase to describe education policies in Malaysia: flip-flops.

Besides piecemeal planning, policy implementation is consistently inhibited by procedural mismatches across Ministry agencies. For example, in 2013, the Ministry launched a major campaign called *Melindungi Masa Instruksional* (Protecting Instructional Time, MMI). Despite its commendable goals, MMI has not changed the fact that any number of ministry bodies can, and frequently do, summon students and teachers out of classrooms to participate in training courses, extra-curricular competitions, motivational sessions and administrative meetings – costing countless classroom hours.

Perhaps the most damaging misalignment within Malaysian education is the divergence between the stated goals of the education system and the incentives within it. While the National Education Philosophy talks about "developing the potential of individuals in a holistic and integrated manner," the ultimate performance indicator in public education is the terminal secondary school examination, the *Sijil Pelajaran Malaysia* (SPM). This is entrenched both in public consciousness and in the secondary school rating system.

This pressure surrounding SPM rankings generates blame and antagonism throughout the education system. Each state department, district office, principal and teacher want to improve their students' SPM averages – if not, they risk public shaming at the next post-mortem meeting. Such trickle-down browbeating may improve efficiency in administrative branches of the civil service, but it is toxic in education, a relational process in which results are co-produced by students. Students who have been harangued at assembly for their mid-year exam results are unlikely to walk into class excited and confident about learning from the teacher who just berated them.

Another consequence of treating SPM results as the be-all-and-end-all is that other performance-management initiatives are subject to *wayang*, a colloquial but frequent reference to theatrical demonstrations of compliance to mask inaction. When already overstretched teachers are ordered to implement the newest gimmick, they inflate performance reporting to deflect censure, while staying focussed on the exam drills that actually determine prestige and blame. This leads not only to wastage from half-hearted implementation, but also to skewed data for benchmarking and planning.

That said, we have seen tremendous shifts in Malaysian education policy making since the controversial 2003 Science and Maths in English (known by its Malay accronym for Pengajaran dan Pembelajaran Sains dan Matematik Dalam Bahasa Inggeris) policy, which former Education Director-General Asiah Abu Samah (2007) called "a top-down decision … made at the highest political and ministerial levels, without much consideration of expert educational opinion" (Asiah Abu Samah 2007, p.328). Since PPSMI, there has been a wave of activism from upper-middle-class parents, which recently resulted in the Dual Language Programme, allowing certain schools to offer some subjects in English, rather than in Malay. To my knowledge, this is the first citizen-driven education policy change that was argued on the grounds of quality improvement, rather than ethno-linguistic preservation. Also, with the *Malaysian Education Blueprint 2013–2025*, we have a policy package drawing on some public consultation and empirical research.

But this is not enough. Many of the "shifts" in the *Blueprint* are at odds with reality. For example, the *Blueprint*'s six "student aspirations" are commendably holistic, but its metric for educational quality is narrow: moving from the bottom third to the top third of countries taking the Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS). Moreover, teachers are expected both to teach critical thinking and to bow unquestioningly to every new directive. On the grassroots side, although the Parent Action Group for Education (PAGE) and its affiliates use the language of educational quality, they are similar to other group associations advocating for their own interests – in this case, upward mobility through schooling – with little attention to the needs of other socio-economic strata.

Good education may happen between a teacher and student in any setting. But a good public education system needs strong commitment from political leaders, who go beyond party lines and empty slogans to thoughtful articulations of a vision for educational excellence and equity. There is too much ethno-linguistic, class and

partisan dispersion for a nationwide consensus around education to emerge without support from those who dominate the public sphere. Any leader who aspires to such a role would need to sustain momentum through messy transitional years before results can justify the reforms. But such leaders would not be alone. We have teachers, many of whom are jaded, but the majority of whom just want to do their jobs well. We have highly trained education researchers, who would be energized by the challenge of fixing the education system – especially if given the unprecedented opportunity to draw from the Ministry's statistical storehouse. We have adults of all identities who want to help Malaysian children flourish. And we have millions of students, who are capable but bored, and whose futures are at stake.

10.5   From Being Lost to Not Being Lost

Edmond Yap *is the Founder and Chief Education Guy of EduNation, an organization that provides free online lessons. His passion for providing education access for all Malaysian children has since been the cornerstone of "EduNation."*
The future of Malaysian education is NOT technology.

There, I said it. And this comes from a person who is part of a team that put up thousands of learning videos online for an online-learning platform called www.edunation.my. EduNation approximates what Khan Academy does, but it is localized and made specifically for Malaysia's public school students. *The future is not technology; technology is only a tool.*

The future of Malaysian education resides in our country's ability to prevent a child from getting "lost in school." It resides in moving that child who is "lost" and left behind in school, to being "not lost." Consider for instance the case of John (not his real name). I ask John, who is a 15-year-old orphan, "What is half plus half?"

After thinking for a long time, John replies, "one over four?"

John does not understand basic arithmetic, even after attending 9 years of public school. And John is one among many students who are lost in Malaysia's public schools.

Indeed, there is a lot of debate about the future of Malaysian education. Several national education improvement projects have been implemented over the years. These projects have yet to yield a rise in international assessment scores such as PISA and TIMMS.

If the future of Malaysian education can focus on turning lost kids into kids who can read, write and count, at their grade level, then that is the future of Malaysian education that I would gladly embrace and champion.

Where is Malaysian education today? This is a topic I dislike mulling about. There is just too much bad news. I sometimes wish our political leaders, ministers and heads of our education departments would just say, "we messed up." Let us admit it and move on. Here are some of our pressing issues.

Official statistics show that 99% of Malaysian school kids are literate. This statistic does not match the reality on the ground. Some teachers I have spoken to report that their school has a literacy rate that is closer to 70%. Kids are getting lost

in school – they are getting left behind. Their reading and mathematics scores lag far behind their peers. Unfortunately, help is not coming their way. Teachers are much too busy. Class sizes in high-need schools can get too big, sometimes with 40 or more students in a class. Students are often streamed based on their abilities, where under-performing students are all placed into one class. A class full of lost kids cannot help one another and allows for the proliferation of negative peer influence.

Even the hardest working teachers have too little time. From informal interviews with teachers, I learned that up to 70% of their time is taken up by non-teaching-related administrative work. Still, their teaching loads can also be heavy. Teachers we have been in contact with report that they teach eight periods a day, and are in contact with up to 240 students. Another issue is race. A portion of our schools are racially segregated. Indians, Chinese and Malays go to schools that are unhealthily homogeneous. These kids grow up thinking badly of other races. The negative stereotypes continue to grow because they do not have exposure and relations with friends of other races.

"Edmond, you are so friendly," Shafika, a happy petite Malay girl said to me. "I never knew that Chinese people can be so friendly, I thought they were all really proud, stuck-up people. I've never had Chinese friends before." Shafika is 21 years old and lives in an urban area.

This list of issues is long and is nowhere near complete. This list of seemingly insurmountable problems reminds me of the day I met John. After meeting John back in 2005 and seeing that he could not even count at 15, I did something that I have regretted ever since. I ran. I never saw John ever again, I never stepped foot in another orphanage again. Looking back at that day, it is because I felt very helpless and hopeless. John is only one child. There are thousands and thousands of Johns. What can happen when we as a nation stop running away from the thousands of Johns in Malaysia today?

Where will Malaysian education be in the future? "We should be like Finland!" Whenever people say that to me, I back away slowly and then make a dash for the door. Finland has a low poverty rate and has such a homogeneous society that comparing Malaysia to Finland is like comparing durians to apples. Malaysia's situation is both economically and demographically diverse.

Let us strip out all the noise. Ultimately, the future of Malaysian education lies in our ability to turn "lost" kids into "not-lost" kids. The question is: how do we do that? I believe the future of Malaysian education depends on our ability to drive towards:

(1) Universal, unfettered access to learning materials right at every child's finger tips. This means making all our physical and virtual learning resources available to our students, whenever they need it. This means that every student has unfettered and independent access to the Internet and all the learning materials that the Internet can provide.

This means that our libraries are well stocked with up-to-date learning materials as well as the most recent best sellers, and not with hand-me-downs that nobody wants to read and books with missing pages.

This means that if a child is too poor to afford Internet connection, she has access to it from public broadband centres and in school. Today, many school computer labs are locked up, inaccessible to children.

This means having technology infrastructure that simply works. You switch it on and it just works. Not 80% of the time, not 90% of the time, but 99.9% of the time. Today our hardware and software solutions in schools are at best, unreliable.

(2) More time dedicated to our students. As it stands we do not have enough time for them. Forty students in a class is pushing the boundaries of classroom size, especially when all our lost kids are stuffed into a single classroom. Our kids need much more contact time from positive influencers, be it teachers or students or parents or the community. Remember John? Nine years in school and nobody sat down with him to explain half plus half.

Taken alone, technology does not have a chance to help a child like John, and as such, technology is not the answer. The future of Malaysian education needs to be about solving the two problems above: problems of access and problems of motivation. If we can begin solving access and motivation issues, we have a real chance in moving Malaysian education in the right direction.

By addressing the issues of access and motivation, kids go from: Lost ➜ Not lost. When this becomes systematic and pervasive throughout our country's education ecosystem, then we can say Malaysian education has achieved significant success.

10.6   Two Key Lessons from 5 Years of *Teach For Malaysia*

Dzameer Dzulkifli *is the Co-Founder and Managing Director of "Teach For Malaysia" (TFM). He co-founded TFM in view of producing future visionary leaders who will enhance Malaysia's educational and national landscapes.*

I invite everyone to believe that change is possible and start living it, in your own way.

> **What is education?** …[I]t is impossible to foretell definitely just what civilization will be twenty years from now. Hence it is impossible to prepare the child for any precise set of conditions. To prepare him for the future life means to give him command of himself; it means so to train him that he will have the full and ready use of all his capacities, that his eye and ear and hand may be tools ready to command, that his judgment may be capable of grasping the conditions under which it has to work, and the executive forces be trained to act economically and efficiently. – John Dewey "My Pedagogic Creed"

John Dewey declares that we cannot predict what the future will look like, but we can give students the critical skills, knowledge and mindsets to own their paths and shape their own futures. Dewey made this point in 1897 and, admittedly, we have

made great progress in education over the last hundred-over years. Unfortunately, the challenge still remains disproportionately against children born into low socio-economic communities. In *Teach For Malaysia (TFM)*, as well as the global *Teach For All* network, we believe that every child has the ability to succeed when they are given the right opportunities. We also truly believe that the challenges are systemic in nature and that there is not a silver bullet to resolve it – but there is a keystone habit or mindset that must exist for any change to happen, and that is: "I can do this. Change can happen."

How does one build this habit or mindset? Widespread social assumptions or biases have unfortunately made many of our students from low socio-economic background lose faith in themselves. In 2013, Farihah, a Political Science graduate from McGill University, taught History for 2 years in a school outside Taiping, Perak. She taught the tenth of 11 classes in Form 4. Almost all her students came from households that are categorized as the Bottom 40 in the 11th Malaysia Plan.

In her first week of teaching, one of her students asked her, "Teacher, why do you come to class five minutes before the bell rings? Don't you know we have no future? Everyone says we're the stupid class. Why do you still bother to teach?"

Farihah knew that her students needed more than remedial classes. They needed to rethink the way they thought of themselves, to swap "stupid" for "successful." She started introducing a lot more positive reinforcement and opportunities for them to experience small successes academically and behaviourally. A quiet student who gave a class presentation was greeted with an enthusiastic "good job!" She gave a pat on the back for the student who helped her classmate with a difficult question. Farihah also worked with the other teachers who taught that class to reinforce this mindset. They regularly discussed how their students were doing and what was needed to move the needle. Things did not change overnight, many students still continued to fail, but slowly they began to believe in themselves. Towards the end of 2014, they were even helping their peers in the last class! When the SPM (*Sijil Pelajaran Malaysia* or the Malaysian Certificate of Education, the national exit examination for public secondary schools) results were released in 2015, Farihah recounts seeing her students' tears of happiness as the best moment of her teaching career. All of them had passed. This is the first key lesson: "Change can happen and I can be part of it."

Fast forward to January 2016, and I had the privilege of joining TFM's fifth cohort of Fellows for dinner. A new Fellow from *Universiti Malaysia Sarawak* shared with the room that in his first week of school, he was appointed to assist with the English Language Club in school. The teacher in charge of the club was interviewing applicants and one student was dismissed because he could not answer her questions properly. Another set of students were not even allowed to enter the room, "I know the three of you and the three of you cannot and will not be able to learn English. Do not even bother coming in." The small dining room was silent as the new Fellow recounted how helpless he felt as a young new teacher when one of the boys responded, "but teacher, we want to learn." I look forward to seeing how this particular new Fellow and future Fellows lead the change in our schools and communities.

What can students do? Back to Farihah's story. On Teacher's Day in 2015, one of her students sent her a text message: "Happy Teacher's Day, Miss Farihah. You are my inspiration. I am studying to be a teacher."

This is the second key lesson: students have it within them to lead their own learning, their own lives and, if we give them a chance, they can lead this nation. Staying positive and teaching in the long run is emotionally, physically and spiritually taxing on every teacher, and I just want to express my deepest gratitude to all those who keep their passion burning and light the spark in others. What if the cure for cancer is hidden away in the mind of a student who is being told right now that he or she is stupid?

10.7   Arts Education and Its Role in Malaysia

Roselina Johari Md. Khir *is a senior lecturer at University Malaya, where she has taught subjects such as teaching drama in the classroom, acting, directing, drama production and playwriting. She has also written original works including "The People of the Forest."*

Arts education has been around in higher institutions in the country since the 1990s. Performing Arts Degrees, called by different names, are offered by University of Malaya, University Science Malaysia, University Institute technology MARA, *Universiti Pendidikan Sultan Idris* (UPSI), University Sabah Malaysia, University Sarawak Malaysia and the ASWARA. These degree programmes are also offered in private universities like Sunway College and Monash, to name a few.

In 2007, the Ministry of Education (MOE) decided to establish two arts schools in Johor and Sarawak, and a third one was just established in Kuala Lumpur under the National Transformation Policy. In fact, one of the national key result areas for the Minister of Education is that young Malaysians need to be creative, innovative, characterized by values and must be able to compete in the international arena. The aspiration of the MOE to uphold arts education in school is in line with the mission and vision of the Ministry of Culture, Arts and Heritage in producing a Malaysian society that is rich in cultural heritage and arts of a distinct identity.

Therefore, in the present century, schools are still seen as institutions that are deemed to develop an individual's potential in a balanced manner through an arts education to produce a knowledgeable, ethical, poised and confident person, with a very strong Malaysian cultural identity. Arts schools are seen as being the custodian of the national cultural heritage.

Educationists in these institutions see their work as passing on to these students theatre and drama skills so that they can perform in theatre and pass these skills on to others through teaching.

However, socially and psychologically, the world is getting more complex. Global issues in the areas of economic disparity, social migration and environment should be debated and discussed. I strongly feel that our youths should not just absorb all the skills of their society but be equipped with the abilities to judge and

question the values of their own society. The mind of the young should be able to think of deeper questions about human existence. Future arts education should go towards more than acquisition or development of cognitive skills but towards helping the young to embark on the quest for wisdom and the development of their values and philosophy of life.

Knowledge of the nation's past heritage and traditions is well and good, but, moving forward, Malaysia should embark on building the citizens of the future. Drama in fact began together with democracy in ancient Greece. They have a symbiotic relationship. The fifth century BC was a time when the performing arts was held in high esteem as a civic, educational and religious institution, where issues and problems of being human and the human experience were dramatized by strong characters like Medea, Antigone, Oedipus and Creon. The Greeks built the parliament and the courts. They loved a debate and this excerpt is an example of a powerplay by men over their women:

CREON   Not even death can make a foe a friend.
ANTIGONE   My nature is for mutual love, not hate.
CREON   Die then, and love the dead if thou must;
No woman shall be the master while I live.

(Antigone by Sophocles, 522–52).

Or another quote by Medea in Euripides Medea

MEDEA   Divorce is a disgrace,
(at least for women),
To repudiate the man, not possible. (31)

One's knowledge of the arts was respected: in fact if one were a prisoner of war one would be set free if one could recite extracts from a Euripides play. The dramatist Aristophanes in his play, *Frogs*, has two of his characters exchange this dialogue:

Aeschylus   Pray, tell me on what particular ground a poet/artist should claim admiration?
Euripides   If his art is true, and his council sound, and if he brings help to the nation by making men better in some respect.

Drama gave voice to the weak and defeated like women, victims and slaves in the society. Theatre functioned as a democratic public space, a space for reflection where a text is enacted. Theatre and drama inherited this tradition from the ancient Greeks and this should be stressed as the function of the arts.

Looking forward into the horizon, arts education in Malaysia should aim to generate citizens of the future, active citizens who can reflect, articulate and debate global issues. The arts universalizes human experience; it transcends borders and educationists, therefore must nurture and equip our youths to meet challenges that come with globalization. The wider potential of the arts is to use it to connect thought and feeling so that the young can explore and reflect subject matter, acquire new knowledge, create new values and build self-efficacy.

Hence, all players must be more daring in taking risk that will eventually enable the sustainability and growth of arts and youths at the primary, secondary and tertiary levels. Our young should be the citizens of the world as opposed to just being

citizens of the nation. They should be able to respond to the needs of society, ethically and intellectually.

10.8   Discussion of Salient Threads

Some 60 years after independence, Malaysia is on the cusp of becoming a fully developed nation. Early in its nationhood, the country laid some critical foundations for education – building schools and universities from scratch, and then developing the necessary staff and faculty to support the growth of school enrolment rates. Today, primary school enrolment is universal and secondary school enrolment exceeds 90% (Ministry of Education Malaysia 2013). Tertiary enrolment is approaching 40% (Ministry of Higher Education Malaysia 2015). In recent years, as Ibrahim points out, Malaysia has become the world's eighth most popular destination for higher education for foreign students, particularly for English-medium undergraduate degrees in private universities and post-graduate degrees in public universities.

Yet, as Terence and Yue-Yi point out, Malaysia may have hit a proverbial glass ceiling – caught in a middle-income trap in economic terms, and plateauing if not regressing in education terms. From a social-cultural and political perspective, Ibrahim highlights his concerns about rising uncritical religiosity even within the folds of academia, and Terence as well as Roselina express deep concerns about the long-hands of neo-liberalism and its threat to humanity in general. Another "long limb" that raises concern, as Ibrahim and Ghauth point out, is the politicians' meddling ways. These intermingling forces create a heady combination that seems to be threatening Malaysia's education progress.

Economically, Malaysia wants to become a fully developed, high-income nation before the turn of the next decade. From an education perspective, the stated goals are clearly captured by the national education philosophy statement written in 1988 (Ministry of Education Malaysia 2013, p.E-4)

> Education in Malaysia is an ongoing effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally, and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are responsible and capable of achieving high levels of personal well-being as well as being able to contribute to the harmony and betterment of the family, the society, and the nation at large.

Is Malaysia's ongoing efforts with the education system moving in the right direction? In their reflective essays, some key questions emerge.

Firstly, what is driving policy making and implementation? Yue-Yi alludes to the incongruity or disjointedness of education policy making and implementation in Malaysia. She observes, for example, an overwhelming emphasis on examination results as a key performance indicator despite the holistic nature of the national education philosophy. Similar issues are also highlighted by the other essayists.

On the one hand, Malaysia is striving to develop an education system that can compete on the global stage, and yet, non-governmental organizations working on the ground are still seeing desperate incidences of children being left behind. Some schools that Edmond visited have reported high illiteracy rates despite official statistics showing near universal literacy. Part of this disparity, apparently, can be explained by how literacy rate is measured and reported. Literacy, as it is currently defined, is synonymous with the completion of primary school. And since primary schooling is compulsory and universal in Malaysia, the statistics show near-perfect literacy rates. At minimum, a different means of tracking this data is needed. The *Malaysian Education Blueprint*, to the credit of the Ministry of Education (2013), has begun addressing some of these issues by introducing different instruments for measuring language competency and literacy.

However, there are also deeper concerns about the underlying practices in Malaysian schools. As Edmond observes, the practice of streaming students into classes based on their achievement scores is still commonly practised. In other words, the best students are grouped into one class and the weakest into another. Ethical issues abound, but ultimately the tragic issue is about limiting the opportunities for growth for the very students who need these opportunities the most. Even in co-curricular activities, as Dzameer shares in his essay, the neediest students are side-lined. How widespread is this problem, and is the exam-oriented culture of the system leading to such destructive behaviours and practices? Is the system failing the very students that rely on it the most?

As exam-orientation and elitism are heavily emphasized, other forces affecting policy making and implementation are also very much in play. The most concerning, as highlighted by the essayists, is the meddling hands of politics and politicians. Some of these arrangements have been institutionalized, as Ghauth points out, including the appointment of the top management and board of public universities by the minister in charge of higher education, who himself is appointed by the prime minister. Implicitly, the leadership is almost always seen as being friendly to the agenda of the ruling government. In other situations, the arrangements may be less institutionalized but no less significant. Institutionalized or otherwise, the effects are generally quite visible. As Ibrahim points out, there are still "discriminatory factors" that continue to limit "inclusiveness in policy regarding students and staff in higher education institutions because of race, religion, language, and political affiliations" and academics who are proxies for book-banning and curtailing freedom of speech and thoughts. It is also important to note, as Yue-Yi has in her essay, that the meddling hands of politicians have led to many "flip-flops" in education policy, frustrating students, parents, teachers and principals.

A number of the essayists – directly or otherwise – also discuss the need for leadership in Malaysia to rise above the ethno-linguistic, class and partisan dispersions to build nationwide consensus towards an education system that is more coherent in its policy and implementation. There was a time, for example, when Finland's education system was one of the worst in Europe. But the political and educational leaders were able to build consensus that led to a coherent and sustained improvement, despite a number of major changes in the political situation in the

country (Simola 2005). Could Malaysia muster a collective will to move in this direction?

If the first sets of questions and issues are related to policy, the second seems more philosophical in nature: How does Malaysia think about education? Is education merely a means to an end? Is education being treated merely as a cog within a larger neo-liberal machinery? Oddly enough, even as questions are asked about neo-liberalism, there are also serious concerns about growing religiosity and also the closing of the Malaysian mind. On the one hand, there are academics championing for moral, political and religious policing, and another is talk about helping Malaysia's children to develop the necessary thinking skills to thrive on the global stage. In the same breath that Malaysian universities are called to improve their international standing and research output, they are also being curtailed by political meddling and pressures to limit freedom of speech. Teachers are expected to teach their students critical thinking as well as to bow unquestioningly to every new government directive. Even as student-teacher ratios hit an admirable 12:1 (Ministry of Education Malaysia 2013), real concerns still exist of children who cannot read or count, and who get left further behind as schools, teachers and their classmates move on. Education decisions have made a zero-sum game of the system – that is Science, Technology, Engineering and Mathematics (STEM) subjects have climbed the social ladder of importance, and arts, humanities as well as social sciences have fallen further down. If the goal of education is to bring out our humanity with warts and all so that we can help the broader cause of humanity, then has our approach to education failed? As Roselina puts it in the end: Our young should be the citizens of the world as opposed to just being citizens of the nation. They should be able to respond to the needs of society, ethically and intellectually.

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