Tamara Savelyeva
Gao Fang *Editors*

Sustainable Tertiary Education in Asia

Policies, Practices, and Developments

Springer

Sustainable Tertiary Education in Asia

Tamara Savelyeva · Fang Gao
Editors

Sustainable Tertiary Education in Asia

Policies, Practices, and Developments

Springer

Editors
Tamara Savelyeva
The Hong Kong Institute of Education
for Sustainable Development UNESCO
China
Hong Kong, China

Fang Gao
Department of International Education
The Education University of Hong Kong
Hong Kong, China

ISBN 978-981-19-5102-2 ISBN 978-981-19-5104-6 (eBook)
https://doi.org/10.1007/978-981-19-5104-6

This Springer imprint is published by the registered company Springer Nature Singapore Pte Ltd.
The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore

Foreword

An important feature of the twenty-first century is the growing concern that today's world has become "unsustainable" as questions are being raised about the state of society to date. Against this backdrop, the sustainable development goals (SDGs) were adopted by the United Nations in 2015, and it is important for the next generation to acquire the qualities and abilities that will enable them to live in an era confronted with the diverse issues raised by the SDGs. What qualities and abilities will be important for the next generation to acquire? And how can these people work together to make the world more "sustainable"?

These questions are of great interest to many people involved in higher education around the world today. One of the answers to these concerns is the promotion of Education for Sustainable Development (ESD), in which human resource development and knowledge creation, especially through higher education, are essential to solving the various challenges posed by the SDGs. In order to realise the SDGs, it is necessary to raise people's awareness of global issues, to make ethical decisions and take actions based on social justice, and to develop science and technology through research and development. ESD is education to develop human resources with such qualities and abilities.

Through ESD, people can learn how to use their own expertise to avoid the catastrophic situation suggested by the concept of "planetary boundaries", to help people lead more "prosperous" and stable lives, to prevent further deterioration of the natural environment, and to restore society and the planet to a healthier state. It is important to understand that "prosperous" in this context does not mean the state that has been achieved by single-mindedly pursuing economic growth in the past but the state that enables people to lead healthy and happy lives (i.e. well-being).

This book edited by Dr. Tamara Savelyeva and Dr. Fang Gao examines these characteristics of ESD from various perspectives. The book is an excellent academic work with many examples of ESD in higher education in the Asian and Eurasian contexts. ESD initiatives in higher education institutions are still in their infancy in many countries and societies. I strongly believe that this book will give readers a better understanding of this topic, which is expected to develop further in the future.

Yuto Kitamura
Professor
Graduate School of Education
The University of Tokyo
Tokyo, Japan

The original version of this book has been revised by updating the source line of the chapters.

Contents

1 An Introduction to the Sustainability of Tertiary Education in Asia: Collaborations, Transformations, Global–Local Tensions, and Future Developments 1
Tamara Savelyeva

Part I Collaborations

2 Sustainable Tertiary Educational Collaboration: Korea's Shared Experiences and the Challenges 13
Ji-Soon Chang

3 Nurturing a Good Neighbour: A Review of Sino-Kazakhstani Higher Education Cooperation 31
Aisi Li

4 Delivering Programs on Education for Sustainable Development (ESD) and UN Sustainable Development Goals (SDGs) in Mainland China and the Hong Kong Special Administrative Region: An Assessment of the Hong Kong Institute of Education for Sustainable Development 43
Stephanie W. Lee, Samson C. W. Ma, and Ngok Lee

Part II Transformations

5 Laozi for Higher Education on Sustainability: Its Principles, Logic, and Holistic Relevance 69
Orlando Nang Kwok Ho

6 Elite to Mass to Universal: The Historical Development, Internationalization and Sustainability of Tertiary Education in Hong Kong 89
Siu-Wai Wu and David Sorrell

7 Liberal Studies Reform and Sustainability Consciousness in Hong Kong Tertiary Education 109
Tamara Savelyeva

Part III Global—Local Tensions

8 The Empowering Potential of Higher Education for Underprivileged Ethnic Minorities' Sustainable Development in Hong Kong: Educational Policies for Access and Equity 129
Fang Gao and Henry Chi Yin Liu

9 Transforming Tertiary Education Environments for Sustainable Development of the Sakhalin Region in Russia 143
Irina Balitskaya and Nitika Jain

10 Institutional Brand Construct and University Sustainability 163
Nan Jia and Jae Park

Part IV Future Developments

11 Vocational cum Pedagogical Tertiary Education and Sustainable Development in Russia 179
Galina Sikorskaia and Tamara Savelyeva

12 Creating a Sustainable College Performance Evaluation in China 197
Luxi Zhang, David Sorrell, Paul Adams, and Bob Adamson

13 Formative Assessment for Lifelong Learning, Effective Teaching, and Sustainable Development in Russia 217
Elza Pecheritsa

14 Conclusion—Towards a General Framework of Sustainable Tertiary Education 231
Tamara Savelyeva

Correction to: Sustainable Tertiary Education in Asia C1
Tamara Savelyeva and Fang Gao

Index 237

Editors and Contributors

About the Editors

Tamara Savelyeva is Associate Professor of Sustainable Education at the Hong Kong Institute of Education for Sustainable Development. She serves as Programme Director at the UNESCO Hong Kong Association; Senior Founding Fellow of the World Institute of Sustainable Development Planners in Hong Kong SAR; and Editorial Board Member of the International Journal of Sustainability in Higher Education. She conducts educational research and projects in the areas of sustainability education development in different countries. Together with participants of the Rio+20 higher education meeting in Brazil, she has contributed to the educational framework for the 2012 Earth Summit. Her recent scholarly works include *In times of uncertainty: Advancing university sustainability model in Hong Kong* (2022), *New knowledge ecologies and politics of technological change* (2021), and *SDG3 Health and Wellbeing: Re-calibrating the SDG Agenda* (2019).

Fang Gao is Associate Professor in the Department of International Education at the Education University of Hong Kong. Her main research interests are in minority education and sociology of education. She has published *Becoming a model minority: Schooling experiences of ethnic Koreans in China* (2010), 32 papers in international refereed journals, and 14 refereed book chapters. She co-edited *Education, ethnicity and equity in the multilingual Asian context* (2019). She is also the editor for *Identities, practices and education of evolving multicultural families in Asia-pacific* to be published.

Contributors

Adams Paul University of Strathclyde, Glasgow, Scotland

Adamson Bob University of Nottingham Ningbo China, Ningbo, China

Balitskaya Irina Sakhalin State University, Yuzhno-Sakhalinsk, Russia

Chang Ji-Soon Sangmyung University, Seoul, South Korea

Gao Fang The Education University of Hong Kong, Hong Kong, China

Ho Orlando Nang Kwok Chartered Institute of Linguists, London, UK; Australian Institute of Interpreters and Translators, Melbourne, Australia

Jain Nitika Institute of Education, University College London, London, UK

Jia Nan UOW College Hong Kong, Hong Kong, China

Lee Ngok UNESCO Hong Kong Association, Hong Kong, China

Lee Stephanie W. College of Professional and Continuing Education, The Hong Kong Polytechnic University, Hong Kong, China

Li Aisi Nazarbayev University, Astana, Kazakhstan

Liu Henry Chi Yin The University of Hong Kong, Hong Kong, China

Ma Samson C. W. Institute of Management Consultants Hong Kong, Hong Kong, China

Park Jae The Education University of Hong Kong, Hong Kong, China

Pecheritsa Elza Innovations Council of the Teachers Professional Re-Training Institute of Tomsk Region, Tomsk, Russia

Savelyeva Tamara The Hong Kong Institute of Education for Sustainable Development, UNESCO China, Hong Kong, China

Sikorskaia Galina Russian Academy of Natural Sciences, Ekaterinburg, Russia

Sorrell David The Education University of Hong Kong, Hong Kong, China

Wu Siu-Wai The Education University of Hong Kong, Hong Kong, China

Zhang Luxi Zhejiang Gong'shang University, Hangzhou, China

Chapter 1
An Introduction to the Sustainability of Tertiary Education in Asia: Collaborations, Transformations, Global–Local Tensions, and Future Developments

Tamara Savelyeva

Asia is probably one of the most important centers of the global sustainability and sustainable development. The Asian region houses three quarters of the world's population and resources. It includes three out of the top-five global economies, which account for more than half of the world's economic growth. The scope and intensity of the sustainability-related challenges in the region are only proportional to the vastness of its territories, high-speed economic growth, booming demographics, and cultural diversity. The growing share of Asia in the global sustainability can be rather accurately estimated by the fact that Asia along accounts for almost half of the world's carbon dioxide and methane gas emissions.

These emergent dynamics are also reflected in the situation of Asian tertiary education sectors, which have been undergoing an 'explosive' expansion during the past two decades (Szmigiera, 2021; UNESCO, 2014; Williams et al., 2021). In 2021, China's public universities and colleges awarded a record number of degrees to over nine million undergraduate and over half a million postgraduate students (MoE, 2021). In another example, India has an estimated annual tertiary enrollment of forty million undergraduate students, which projects exponential figures in the country's demographic dividend—its young and highly educated workforce—over the next decade (Government of India, 2020).

The geopolitical notion of the 'Greater (Eur)Asia,' a cooperative union of China, Russia, India, and the Central Asian countries, suggests a possibility of shifting the gravity center of global sustainability discourse closer to the Asian region (Erşen, 2014; Subbetto & Shmakhov, 2020). The earliest in-depth analysis and consideration on shifting sustainable higher education discourse toward the East started when the World Bank (Brunner & Tillett, 2006) and Asian Development

T. Savelyeva (✉)
The Hong Kong Institute of Education for Sustainable Development, Hong Kong, China
e-mail: tvs3@cornell.edu

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_1

Bank (ADB, 2011) released their reports on Asian tertiary education and its impact on regional economic development. They described rapid economic development, demographic trends, growing demands for knowledge production and public preference for tertiary degrees as some of the reasons behind the expansion of the tertiary sector in the researched countries. Furthermore, a collection of papers published by the Institute of International Education under the sponsorship of the US Department of State, *Asia: The next higher education superpower?* (Lefebure & Bhandari, 2015) echoed the reports by the World Bank and Asian Development Bank and highlighted dynamic trends, diverse challenges, and future opportunities for regional tertiary education. These findings coincided with the implementation years of the United Nations' Millennium Sustainable Goals (UN, 2000) and informed the subsequent 2030 Agenda and its Sustainable Development Goals (UN, 2015).

The foregoing international organizations' analyses of the regional tertiary education sustainability challenged a common assumption that the 'East' needs to reach the level of the 'West.' The education systems of Asia appear to be switching from following Western tertiary models to modeling after their own successful practices. Asia now aim at producing graduates who meet global educational standards while satisfying the demands from their diverse, dynamic, growing and, in some cases, booming economies. These, together with the geopolitical turn for the 'Greater Eurasia,' have given a new twist to scholarly investigations of the region's tertiary education that placed Asia from the periphery of sustainable development discourse into its core (Brehm & Kitamura, 2022; McCowan et al., 2021). Related investigations such as those in the present edited volume address some of the following questions: How have such Asian higher education models been brought about? How sustainable are they as new challenges unfold?

A rare subject just about thirty years ago, Asian tertiary education studies are now attracting a large number of scholars who consolidate the field with authentic research problems and novel and extensive field works (Liu 2021; Park & Savelyeva, 2022; Savelyeva, 2022a, 2022b). It is very timely to get a systemic look at such scholarly developments across different Asian tertiary education systems with their unique structures of tertiary education, nature of their operations, and sustainability commitments. This edited volume provides an interdisciplinary and trans-boundary analysis of the sustainability of tertiary education systems in South Korea, Kazakhstan, Russia, and China and includes regions such as the Hong Kong Special Administrative Region of China, Ural-Siberian and the Far Eastern regions of Russia.

The studies in this volume reflect on the complexity of the tertiary education systems within the regions and tensions inherent to international geopolitics and social-economic-environmental developments in Asia. Approaching sustainability as a West-born concept and an extrinsic political doctrine, the studies describe different challenges of adopting Western sustainability by a culturally distinct Asian tertiary sector. Furthermore, the studies in this volume suggest the greater binding of the 'sustainability doctrine' with the notion of human–nature relationships, cultural roots, traditions, and histories of the place in order for sustainability to start making sense, to manifest itself, and to be fully accepted.

Although international reports and official sustainability-related datasets feature regional tertiary education affairs and levels of the universities' sustainability policy engagements, they might not reflect the actual changes in the minds of people in Asian campuses (Liu et al., 2022; Savelyeva, 2016, 2018a, 2018b, 2019; Savelyeva & Douglas, 2017a; Savelyeva & Rickards, 2017b; Savelyeva & Park, 2019, 2022). One of the objectives of this volume is to identify tensions in the implementation of sustainability in order to come up with an incisive and culturally sensitive vision for the future development of sustainable tertiary institutions in Asia. Another objective of this volume is to offer local perspectives to the implementation of the United Nations' Sustainable Development Goals (SDGs) by Asian universities.

The SDGs and their mandate for universal implementation of sustainability targets added a new challenge for Asian tertiary institutions. Assigned with the critical mission of 'providing students and learners within their sphere of influence with the knowledge, skills and mindsets to address the SDGs through their current or future roles' (SDSN, 2020: p. 3), universities have generally pledged their commitment to the cause. However, outcomes so far suggest that the responses of tertiary institutions in Asia vary dramatically in the level of their commitments and contributions. We see the Hong Kong public universities in full structural alignment with the SDGs, while there is a scattered response to the SDGs in the campuses of Ural, Siberian, and the Sakhalin regions of Russia. We can also see international university presidents signing global collaborative agreements over the SDGs such as the case of the South Korean tertiary institutions engaged with SDGs over an ad hoc nation-wide online academic platform.

The SDGs are not only about contributions and commitments to the tertiary education sector. Mapping and implementing an international agenda such as the SDGs in the complex and uneven terrains of Asia unveil large scale local-to-global sustainability burdens. The ongoing global health crisis, which is directly related to the SDG3 *Health and wellbeing,* illustrates how globalization-related challenges such as the mobility of a large population and high speed of exchange of goods and services create a fertile ground for pandemic.

Most of the authors in this volume adopted exploratory, participatory and critical perspectives that provide authentic insights into the sustainability issues in their respective tertiary sector, thus, allowing the voices of people to be heard. The collection of the twelve studies featured in the volume, contributes to the research arena of the SDGs' qualitative indicators by fostering a cross-cultural dialog among sustainability stakeholders of Asian tertiary education, yet implications beyond Asia. Due to a limited number of chapters in the volume, instead of covering every country in Asia, this volume adopts constructivist positioning for in-depth analyses of the selected sustainability-related policies, frameworks and discourses in tertiary education in South Korea, Kazakhstan, Ural-Siberian and the Far Eastern parts of Russia, China and its Hong Kong Special Administrative Region. Rather than employing an issue-based structure, the volume organization features the authors' authentic ways of considering, investigating and discussing different aspects of university sustainability in Asian tertiary education. It is worthwhile noting that the authors of this volume interchangeably use the terms 'tertiary education' and 'higher education' to refer to post-secondary educational systems and structures in their respective territories.

Organization

The 2022 UNESCO report on higher education for sustainability (Parr et al., 2022) declared that universities' main contribution to the SDGs is that of radical transformation of minds, policies, practice and agencies. Yet, as the SDG17 *Partnership for the Goals* suggests, such transformation could only be materialized in the process of international collaboration. In their attempt to ensure firm and resilient SDGs-related transformations, universities would inextricably face local and global tensions while keeping their strategic vision on the future. With this rationale in mind, the chapters in this volume are organized into four sections, namely, *Collaborations*, *Transformations*, *Global–Local Tensions,* and *Future Developments*. The chapters in this volume draw on inquiries and experiences from 12 research projects conducted in Asia.

The opening section, *Collaborations*, contains studies on the complexities of tertiary education partnerships and cross-border agreements driven by national cooperation policies of South Korea and Kazakhstan with China, and the contribution of a regional UNESCO Hong Kong office to strengthening regional partnerships with the SDGs' program implementations.

The Chap. 2, *Sustainable Tertiary Educational Collaboration: Korea's Shared Experiences and the Challenges,* by Ji-Soon Chang (2022) shares Korean achievements as a 'sustainability donor' to the developing Asian countries through its tertiary education cooperation programs. Chang suggests approaches and methods to resolve global issues in developmental cooperation in a new era of the SDGs.

Aisi Li (2022) in the Chap. 3 of this book, *Nurturing a Good Neighbour: A Review of Sino-Kazakhstani Higher Education Cooperation,* focuses on the thirty years of the China-Kazakhstan tertiary education cooperation. Drawing on the case studies from the University of Shanghai Cooperation organization, Confucius Institute, and Xinjiang tertiary sector, Li argues that the cooperation benefits the China's national development plan and the country's regional security strategy.

Hong Kong researchers, Stephanie Wing Lee, Samson C. W. Ma, and Ngok Lee (2022) in the Chap. 4 *Delivering Programs on Education for Sustainable Development and UN SDGs in Mainland China and the Hong Kong SAR* apply an analytical framework for a detailed assessment of the sustainability programs offered by the Hong Kong-based UNESCO China tertiary institution, Hong Kong Institute of Education for Sustainable Development.

The next section, *Transformations*, includes studies that present authentic sustainability traditions and apply a historical approach to their explorations of the systemic changes in Asian tertiary systems. In the Chap. 5 of this volume, *Laozi for Tertiary Education and Sustainability: Principles, Logic and Holistic Relevance,* Orlando Nang-Kwok Ho (2022) outlines how principles from an influential ancient Chinese classic, Laozi's *The Book of Logo and Virtues*, can aid tertiary curricula and foster sustainability. The Chap. 6, *Elite to Mass to Universal: The Historical Development, Internationalization and Sustainability of Tertiary Education in Hong Kong*, written by Siu-Wai Wu and David Sorrell (2022), takes a historical approach and investigates a century of Hong Kong tertiary education's sustainable development under the pressures of internationalization and 'universalization.' The Chap. 7 of the same section *Liberal Studies Reform and Sustainability Consciousness in Hong Kong Tertiary Education,* written by Tamara Savelyeva (2022c) discusses sustainability consciousness of Hong Kong graduates fostered under a compulsory liberal studies curriculum. The chapter analyses the potential impacts of the 2021 curriculum reform on the sustainability mind-set of the Hong Kong youth and discusses the 'sustainability consciousness with a nil participation paradox,' which depicts the core of the research findings.

The third section of the volume, *Global–Local Tensions*, contains an 'islands' collection of this volume. It presents Russian Sakhalin and China's Hong Kong regional studies that reveal local voices of the indigenous minority groups and local tertiary students, and discuss local educational policies in connection to sustainable development of their corresponding regions. Fang Gao and Henry Chi Yin Liu (2022) in their Chap. 8 *The Empowering Potential of Higher Education for Underprivileged Ethnic Minorities' Sustainable Development in Hong Kong: Educational Policies for Access and Equity* critically evaluate the effectiveness of government support for boosting capacities and access to tertiary education for the marginalized members of the local ethnic minority groups. The Chap. 9 of this volume, *Transforming Tertiary Education Environments for Sustainable Development of the Sakhalin Region in Russia* by Irina Balitskaya and Nitika Jain (2022) speaks about the multicultural aspects of tertiary education sustainability. The authors investigate the ways universities address demands, needs and aspirations of the various ethnic groups living on Sakhalin Island of Russia's Pacific Region. Chapter 10 *Institutional Brand Construct and University Sustainability* by Nan Jia and Jae Park (2022), presents a multiple case study on universities' brand-building strategies for fostering 'corporate sustainability.' Nan Jia and Jae Park discuss the ways universities use corporate sustainability as a goal and method to achieve their regional and global standing, while dealing with the increasing pressures to boost their social and economic impacts in the society.

The last section of the volume, *Future Developments*, covers some strategic developments in the tertiary sectors' of the Ural and Siberian regions of Russia, the mainland China, and China's Hong Kong SAR, and discusses institutional approaches to sustainable development in universities. The Chap. 11, *Vocational cum Pedagogical Tertiary Education and Sustainable Development in Russia,* by Galina Sikorskaia and Tamara Savelyeva (2022) provides a history and policy overview of the tertiary Vocational-Pedagogical education in Russia and discusses the strategic factors for sustainable development with a qualitative case study.

Luxi Zhang, David Sorrell, Paul Adams, and Bob Adamson (2022) in their Chap. 12 *Creating a Sustainable College Performance Evaluation in China* discuss challenges and tensions of the nation-wide college performance evaluation (CPE) system implemented in Chinese universities in connection with the country's Double First Class University Plan for modernization of the Chinese tertiary education sector.

The Chap. 13 of the volume Elza I. Pechertsa's (2022) *Formative Assessment for Lifelong Learning, Effective Teaching, and Sustainable Development in Russia* evaluates an implementation of formative assessment for lifelong learning and sustainable development in the Russian education system. Elza I. Pecheritsa's study discusses challenges for universal adaptation of the assessment tool in the country's secondary through tertiary levels.

In Chap. 14, *Towards a General Framework of Sustainable Tertiary Education*, Tamara Savelyeva (2022d) sums up the findings presented in the volume and derives an insightful, culturally relevantframework for the future development of sustainable tertiary education in Asia. The resulting general framework consists of the three features: Sustainability, Institutional Rationalization, and Educational Mechanisms.

All these contributions share a common claim that one of the most effective ways of achieving strategic goals of sustainable development is through enhancing the quality of tertiary education. As different tertiary education traditions within Asia are fast evolving amidst challenging contexts, from globalization to pandemics, there is a hope that a sustainable development of tertiary education in the region can be realized only by a collective effort of its stakeholders. The contributors of this volume are committed to sustaining higher education institutions through their research, teaching, and exchange of knowledge with community both local and international.

References

Asian Development Bank (ADB). (2011). *Higher education across Asia: An overview of issues and strategies*. ADB. http://hdl.handle.net/11540/932.

Balitskaya, I., & Jain, N. (2022). Transforming tertiary education environments for sustainable development of the Sakhalin region in Russia. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_9.

Bhandari, R., & Lefébure, A. (Eds.). (2015). *Asia: The next higher education superpower? Global education research reports*. Institute of International Education.

Brehm, W., & Kitamura, Y. (2022). *Memory in the Mekong: Regional identity, schools, and politics in Southeast Asia*. Teachers College Press.

Brunner, J., & Tillett, A. (2006). The world bank/The international bank for reconstruction and development report no 68926. Higher education in Central Asia: The challenges of modernization. Case studies from Kazakhstan, Tajikistan, The Kyrgyz Republic and Uzbekistan. World Bank Group. https://documents1.worldbank.org/curated/en/266211468235483571/pdf/689260ESW0P0850rnization00200700eng.pdf.

Chang, J. (2022). Sustainable tertiary educational collaboration: Korea's shared experiences and the challenges. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_2.

Erşen, E. (2014). Rise of new centres of power in Eurasia: Implications for Turkish foreign policy. *Journal of Eurasian Studies, 5*(2), 184–191. https://doi.org/10.1016/j.euras.2014.05.003.

Friedman, E., & Gostin, L. (2016). The United Nations sustainable development goals: Achieving the vision of global health. *Georgetown Public Policy Review, 21*(1). https://core.ac.uk/download/pdf/70375673.pdf.

Gao, F., & Liu, H. (2022). The empowering potential of higher education for underprivileged ethnic minorities' sustainable development in Hong Kong: Educational policies for access and equity. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_8.

Government of India, Ministry of Human Resource Development, Department of Higher Education. (2020). *All India Survey on Higher Education (AISHE) report 2019–2020*. Government of India. https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/aishe_eng.pdf.

Ho, O. (2022). Laozi for Higher Education on Sustainability: Its principles, logic, and holistic relevance. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_5.

Institute of International Education (IIE) U.S. Department of State. (n.d). *Asia's stake in 21st-century higher education*. https://www.iie.org/Learn/Blog/2015/08/2015-August-Asias-Transformation-And-The-Role-Of-International-Higher-Education.

Jia, N., & Park, J. (2022). Institutional brand construct and university sustainability. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_10.

Lee, S., Ma, S., & Lee, N. (2022). Delivering programs on Education for Sustainable Development (ESD) and UN Sustainable Development Goals (SDGs) in Mainland China and the Hong Kong Special Administrative Region: An assessment of the Hong Kong Institute of Education for Sustainable Development. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_4.

Li, A. (2022). Nurturing a good neighbour: A review of Sino-Kazakhstani higher education cooperation. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_3.

Liu, J. (2021). Japan. Sustainability and climate action in the higher education system. In T. McCowan, W. Leal, & L. Brandli (Eds.), *Universities facing climate change and sustainability* (pp. 83–91). Global University Leaders Council.

Liu, J., Kitamura, Y., & Savelyeva, T. (2022). Building an 'ecosystem' for transforming higher education teaching and learning for sustainability. *Asia Pacific Education Review*. http://doi.org/10.1007/s12564-022-09794-1.

McCowan, T., Leal, W., & Brandli, L. (Eds.). (2021). *Universities facing climate change and sustainability*. Global University Leaders Council.

Ministry of Education of the People's Republic of China (MoE). (2021). Chinese university college graduates to exceed 9 million in 2021. http://english.www.gov.cn/statecouncil/ministries/202012/01/content_WS5fc63051c6d0f72576941058.html.

Organisation for Economic Co-operation and Development (OECD). (2019). *Education at a glance: Russian federation*. https://www.oecd.org/education/education-at-a-glance/EAG2019_CN_RUS.pdf.

Park, J., & Savelyeva, T. (2022). An interpretive analysis of the 2030 sustainable development goals in Hong Kong public universities. *Asia Pacific Education Review*. http://doi.org/10.1007/s12564-022-09777-2.

Parr, A., Binagwaho, A., Stirling, A., Davies, A., Mbow, C., Hessen, D., Bonciani, H., Salmi, J., Brown, M., Ramakrishna, S., Serrano, S., Schmelkes, S., Tong, S., & McCowan, T. (2022). *Knowledge-driven actions: Transforming higher education for global sustainability. Independent expert group on the universities and the 2030 agenda*. UNESCO.

Pecheritsa, E. (2022). Formative assessment for lifelong learning, effective teaching, and sustainable development in Russia. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_13.

Savelyeva, T. (2016). Vernadsky meets Yulgok: A non-western dialog on sustainability. *Educational Philosophy and Theory, 49*(5), 501–520. https://doi.org/10.1080/00131857.2016.1138851.

Savelyeva, T. (2018a). Stepping up the challenge: Fostering sustainability consciousness of Hong Kong students with new senior secondary liberal studies curriculum. In K. Kennedy & J. Lee (Eds.), *The changing role of schools in Asian societies. International handbook on schools and schooling in Asia* (pp. 740–756). Taylor & Francis. https://doi.org/10.4324/9781315694382-69/stepping-challenge-tamara-savelyeva?context=ubx&refId=b73a08f1-b538-4c54-8b37-7826f7e97e8f.

Savelyeva, T. (2018b). Sustainable schooling in the Asia-Pacific region: An imperative of hope. In K. Kennedy & J. Lee (Eds.), *The changing role of schools in Asian societies. International handbook on schools and schooling in Asia* (pp. 683–685). Taylor & Francis. https://doi.org/10.4324/9781315694382-64/sustainable-schooling-asia-pacific-region-tamara-savelyeva.

Savelyeva, T. (2019). Problematisations and issues: Alternative traditions on sustainable development. In T. Savelyeva, S. Lee, & H. Banack (Eds.), *SDG 3 good health and wellbeing: Recalibrating the SDG agenda* (pp. 7–10). Emerald. https://doi.org/10.4324/9781315694382-64/sustainable-schooling-asia-pacific-region-tamara-savelyeva.

Savelyeva, T. (2022a). In times of uncertainty: Advancing university sustainability model in Hong Kong. In W. Leal (Ed.), *Handbook of sustainability science in the future*. Springer. https://doi.org/10.1007/978-3-030-68074-9_122-1.

Savelyeva, T. (2022b). The influence of education and family systems on the sustainability values of Hong Kong university students. *Asia Pacific Education Review*. https://doi.org/10.1007/s12564-022-09786-1.

Savelyeva, T. (2022c). Liberal Studies reform and sustainability consciousness in Hong Kong tertiary education. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_7.

Savelyeva, T. (2022d). Conclusion—Towards a general framework of sustainable tertiary education. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_14.

Savelyeva, T., & Douglas, W. (2017a). Global consciousness and pillars of sustainable development: A study on self-perceptions of the first-year university students. *International Journal of Sustainability in Higher Education, 18*(2), 218–241. https://doi.org/10.1108/IJSHE-04-2016-0063.

Savelyeva, T., & Rickards, S. (2017b). Education for sustainability in higher education: The Asia-Pacific region. Editorial to a special issue on sustainability education in the Asia-Pacific region. *International Journal of Sustainability in Higher Education, 18*(2): 166–170. https://doi.org/10.1108/IJSHE-10-2016-0193.

Savelyeva, T., & Park, J. (2019). Critical examination of the Hong Kong liberal studies policy and curriculum. [香港のリベラル・スタディーズの見直し政策とその批判的検]. *Research Journal of the Curriculum Center for Teachers, 18*. [教員養成カリキュラム開発研究センター 研究年報』第18巻] Tokyo Gakugei University. https://u-gakugei.repo.nii.ac.jp.

Savelyeva, T., & Park, J. (2022). Blockchain technology and sustainable education. *The British Journal of Educational Technology, 53*(6): 1591–1604. https://doi.org/10.1111/bjet.13273.

Sikorskaia, G., & Savelyeva, T. (2022). Vocational cum pedagogical tertiary education and sustainable development in Russia. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_11.

Sustainable Development Solutions Network (SDSN). (2020). *Accelerating education for the SDGs in universities: A guide for universities, colleges, and tertiary and higher education institutions*. SDSN.

Szmigiera, M. (2021). *Number of universities worldwide in 2020 by country*. https://www.statista.com/statistics/918403/number-of-universities-worldwide-by-country/.

Subbetto, A., & Shamakhov, V. (2020). Noospheric vocation of the greater Eurasia in the XXI century. *Eurasian Integration: Economics, Law, Politics, 14*(4), 17–28. https://doi.org/10.22394/2073-2929-2020-4-17-28.

United Nations (UN). (2000). *United Nations millennium declaration fifty-fifth session agenda item 60 (b) A/RES/55 resolution adopted by the general assembly [without reference to a main committee (A/55/L.2)]*. https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_55_2.pdf.

United Nations (UN). (2015). *Transforming our world: The 2030 agenda for sustainable development A/RES/70/1*. United Nations.

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2014). *UNESCO education strategy 2014–2021*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000231288.

Williams, J. H., Brehm, W., & Kitamura, Y. (2021). Measuring what matters? Mapping higher education internationalization in the Asia-Pacific. *International Journal of Comparative Education and Development, 23*(2), 65–80. https://doi.org/10.1108/IJCED-10-2020-0071.s

Wu, S., & Sorrell, D. (2022). Elite to mass to universal: The historical development, internationalization and sustainability of tertiary education in Hong Kong. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_6.

Zhang, L., Sorrell, D., Adams, P., & Adamson, B. (2022). Creating a sustainable college performance evaluation in China. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments*. Springer. http://doi.org/10.1007/978-981-19-5104-6_12.

Tamara Savelyeva is Associate Professor in Sustainable Education at the Hong Kong Institute of Education for Sustainable Development. She serves as a Program Director at the UNESCO Hong Kong Association; Senior Founding Fellow the World Institute of Sustainable Development Planners in Hong Kong SAR; and Editorial Board member of the International Journal of Sustainability in Higher Education. Dr. Savelyeva conducts educational research and projects in the areas of sustainability education development in different countries. Together with participants of the Rio+20 higher education meeting in Brazil, she has contributed to the educational framework for the 2012 Earth Summit. Her recent scholarly works include 2022 *In times of uncertainty: Advancing university sustainability model in Hong Kong*; 2021 *New knowledge ecologies and politics of technological change*; and 2019 *SDG3 Health and Wellbeing: Re-calibrating the SDG Agenda.*

Part I
Collaborations

Chapter 2
Sustainable Tertiary Educational Collaboration: Korea's Shared Experiences and the Challenges

Ji-Soon Chang

Introduction

According to the Universal Declaration of Human Rights, education is the basic right for all. Article 26.1 spells out that 'Everyone has the right to education,' and 26.2 and 26.3 specify that education is a human right and that it is the duty of the parents to provide education (UN, 1948). In 1990, in Jomtien, Thailand delegates adopted the World Declaration on Education for All (EFA), involving basic equal rights. EFA has been a global movement to provide basic education for all ages, from young children to adults. In 2000, Dakar, Senegal, hosted the World Education Forum (WEF) and participants from governments declared their commitment to achieve EFA and identified six goals to be met by 2015 (UNESCO, 2000). From this, all related stakeholders, such as governments, development agencies, civil societies, and the private sector, worked together to reach the EFA goals. These goals reflect the UN's wider Millennium Development Goals (MDGs). All development partners focused on achieving the MDGs for poverty reduction and the development of developing partner countries by 2015. UNESCO has published annual global monitoring reports on the achievement of these goals. In 2015, many global challenges remained. All delegates from the education sector who gathered at Incheon, Republic of Korea, in May 2015, declared 'Education 2030' would be a commitment toward inclusive and equitable quality education and lifelong learning for all (World Education Forum, 2015). All participants recognized the importance of education as a key driver of development. As in 2000, new goals were launched. These were called Sustainable Development Goals (SDGs), as announced by the UN General Assembly in September 2015. Education is known to have a key role in poverty eradication as well as sustainable development. There is an extensive literature on educational collaboration and cooperation (Li, 2022). For example, Chan (2004) points out the

J.-S. Chang (✉)
Sangmyung University, Seoul, South Korea
e-mail: nowis21c@gmail.com

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_2

importance of international cooperation in higher education; King (2009) explores cooperation with the developing world; Nakaburo et al. (2010) focus on best practice in North–South cooperation; Marginson et al. (2011) examine higher education cooperation and strategic development; while Yonezawa et al. (2014) concentrate on cooperation in East Asia; Chang (2015) on higher education cooperation between Korea and Asia; Feuer and Hornidge (2015) suggest on integration or manufacturing of higher education in ASEAN.

This paper focuses on the development of collaboration in tertiary education between Korea and other Asian countries and makes suggestions for future cooperation. Firstly, it examines the introduction of Korea's development cooperation framework after the country's entrance to the OECD DAC, drawing on the Korea DAC Peer Review and Memorandum. Secondly, it considers certain areas of Korea's official development assistance (ODA), such as the budget involved, sectors focused on, and regions that resources are distributed to. Thirdly, it describes the tertiary education collaboration between Korea and other Asian countries. This includes a review of statistical data and analysis of cooperation programs, a case study partnership model and critical issues in Korea's educational cooperation. Finally, it reviews the SDGs and the role of education and suggests a new approach for improving collaboration and the development of developing partner countries.

Current Situation in Korea

Korea enacted the *Framework Act on International Development Cooperation* (Framework Act) and the *Presidential Decree*, which came into force in July 2010 and laid the legal basis for a more integrated ODA system (OECD, 2013). In 2020, the Korea Government revised Frame Act, such as strengthening of CIDC, establishment of CIDC's secretariat office, the mid-term strategy for development cooperation, the role and process on evaluation of CIDC. The development cooperation framework of Korea consists of a coordinating body, supervising ministries, and executing agencies (Fig. 2.1).

The Committee for International Development Cooperation (CIDC) acts as the coordinating body. The CIDC deliberates and decides the overall ODA policies and annual budget in a comprehensive and systematic manner The CIDC is composed of 26 members, including the Prime Minister as the chairperson, ministers of 13 related ministries, heads of 2 implementation agencies (KOICA, and EDCF), and eleven experts drawn from the wider community. The CIDC includes the Working Committee chaired by the Vice Minister of the Office for Government Policy Coordination (OGPC, formerly the Prime Minister's Office [PMO]), which consults and handles other matters for CIDC. Currently, Korea revised the *Framework Act on International Development Cooperation* in 2020 and new secretariat office of CIDC set up under the OGPC, Bureau for International Development Cooperation (Article 9). Meanwhile, the committee for Evaluation Advisory, chaired by the Deputy Minister

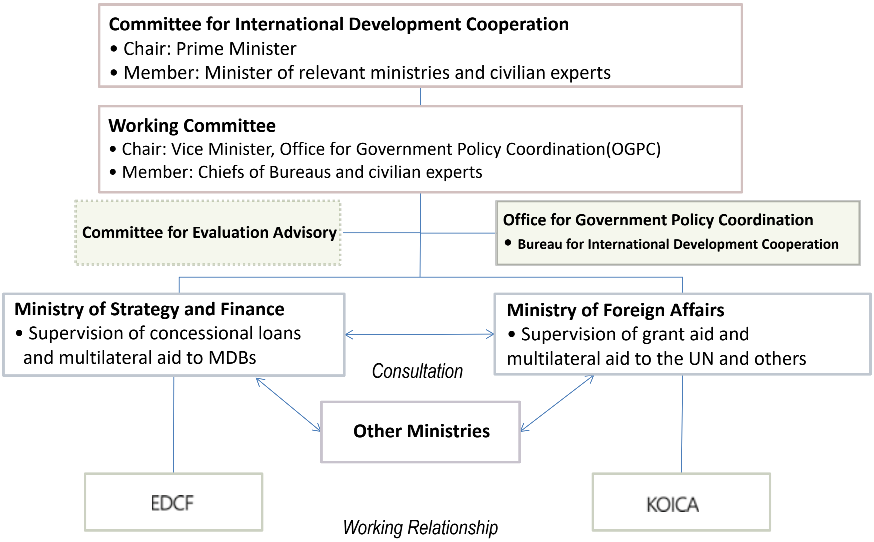


Fig. 2.1 Overall institutional framework for Korea's Development Cooperation. *Source* Committee for International Development Cooperation (2017)

of Bureau for International Development Cooperation, aims to strengthen CIDC's evaluation capacity through an integrated evaluation system.

Korea's ODA framework is supported by two main financial pillars: grant and concessional loans, the former managed by the Ministry of Foreign Affairs (formerly the Ministry of Foreign Affairs and Trades or MOFAT) and the latter by the Ministry of Strategy and Finance (MOSF). Most of Korea's ODA (83% in 2015) is concentrated in these two ministries. The Economic Development Cooperation Fund (EDCF) in the Export–Import Bank of Korea (Korea EXIM) manages the concessional loans and Korea International Cooperation Agency (KOICA) implements grants. Based on the *Economic Development Cooperation Fund (EDCF) Act* (Article 1), Korea EXIM is entrusted with the operation and administration of the EDCF, which was established in 1987 to support the industrial development and economic stability of developing partner countries. EDCF runs the Fund Management Council (chaired by the Minister of MOSF). KOICA was founded in 1991 under the *Korea International Cooperation Agency Act* (Article 1) as the government agency responsible for grant aid and technical cooperation to support the socio-economic development of developing partner countries. Other central administrative agencies, local government, and public institutions also conduct various models of international development cooperation, such as projects, training programs, and the dispatch of experts and volunteers. More than 30 other ministries, agencies, and partners provide small amounts of grants for different purposes to more than 80 developing partner countries. Most government ministries carry out ODA projects based on related laws on overseas exchanges and international cooperation, while some ministries, such as education, health, agriculture, and ICT, do so based on memoranda of understanding (MOU) with developing partner countries.

The 6th CIDC meeting in December 2009 resolved to establish the ODA Policy Department in OGPC, to act as the secretariat of the CIDC from January 2010. The CIDC decided the following main agenda (Government of the Republic of Korea, 2012): (i) the Mid-term ODA Policy and Annual Implementation Plan; (ii) matters concerning evaluation; (iii) matters related to international development cooperation requiring coordination at the whole-of-government level; (iv) other matters deemed important and recommended by the chairperson. Specifically, CIDC reviewed the annual ODA budget and plans from each related ministry and the supervising agencies. It also suggested three strategies for development cooperation such as 'sharing Korea's development experience,' 'reforming the ODA system,' and 'strengthening global partnership.' First, it should gather developmental experiences from recipients and donors and share these with the international community, including both developed countries and developing partner countries interested in Korea's experiences on development. Even though it has a short history as a donor, Korea consistently contributes to the international community. However, it also needs to reform the ODA system in order to enhance the effectiveness of its activities and ensure international standards. Korea is a member of OECD DAC and wants to adopt the DAC system. Strengthening global partnerships lies at the heart of international best practices, which Korea is trying to bring about as an emerging donor. In addition, in the new era of SDGs, Korea will increase the amount of ODA in order to achieve the SDGs and continue to deliberate on its policies on development cooperation and sustainable development. The 36th CIDC meeting in January 2021 announced the 3rd mid-term strategy for development cooperation. The key points are 4 goals and 12 tasks, such as strengthening global health crisis, increasing humanitarian assistance, leading green transformation, innovation program, strengthening capacity of partner countries, cooperation in civil society organizations, extension international cooperation, etc.

Korea's ODA at a Glance

Owing to the global financial crisis that began in 2008, most DAC members tightened control of their ODA budgets. In contrast, between 2005 and 2019, Korea constantly increased its ODA budget (Fig. 2.2). In 2006, it began preparations for DAC membership and from then on it has increased the volume of ODA as well as built the necessary policies, aid architecture, and legal frameworks. As a result, by 2010, Korea, as a DAC member, had steadily increased the ODA budget and its commitment to international communities. The ODA net disbursement of Korea was US$ 5 million in 1987, and US$82 million in 2005, increasing 3 times to US$268 million in 2019. A large portion of Korea's ODA contributes to social infrastructure and services, such as education, health, population and reproductive health, water

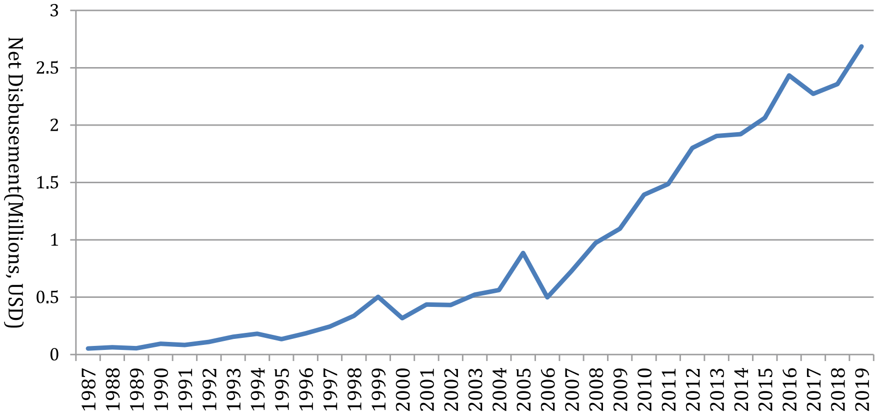


Fig. 2.2 Korea's ODA by year (1987–2019)

supply and sanitation, government and civil society. Economic infrastructure and production are the other key beneficiary areas.

Currently, Korea's ODA focus is on Asia, reflecting its own geographical position, but it also supports other regions. Between 2009 and 2018 Asia (54.6%) was the leading beneficiary region, followed by Africa (22.1%), and Central and South America (8.5%). In 2009, 53.9% of the spending in Asia was focused on countries in East Asia, 39% on South and Central.

Asia and 5% on the Middle East. In the near future, Korea will extend and enlarge its ODA activities in Africa and Central and South America, in line with global trends (Table 2.1).

Korea's Main ODA Agencies: EDCF and KOICA

As already mentioned, Korea has two main ODA implementation facilities: grants and concessional loans. The EDCF, managed by the Export–Import Bank of Korea under the Ministry of Finance and Strategy, gave concessional loans. The EDCF's total commitment is mainly to Asia, involving 62.5% of its funding, and Africa (25.2%). In Asia, Vietnam has been the largest partner country, receiving a total of 14.5% of EDCF loans, followed by Bangladesh (6.5%), Philippines (5.8%), Cambodia (5.5%), and Myanmar (4.8%). EDCF loans by sector are shown in Fig. 2.3. The leading sector was transportation (35.0%), followed by health (14.5%), water resources and hygiene (13.9%), energy (10.8%), education (6.4%), public administration (6.1%), and telecommunication (7.4%).

KOICA is the other major funding agency, managing grants under the Ministry of Foreign Affairs. Since its establishment in 1991, KOICA has increased the ODA budget each year, in line with the country's overall increase in ODA, especially after

Table 2.1 Korea's ODA by Region (Unit: 2013 constant US$ millions)

Region	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average(%)
Asia	313.45	587.29	625.13	679.92	771.72	738.02	774.47	751.47	786.53	807.34	
	53.9	65.2	63.2	57.5	58.9	52.9	52.7	48.5	48.7	44.9	54.6
Africa	95.01	139.88	178.36	261.01	271.72	332.72	358.76	415.64	408.01	505.04	
	16.4	15.5	18.0	22.1	20.7	23.8	24.4	26.8	25.3	28.1	22.1
Central & South America	55.84	64.46	64.39	76.2	96.48	109.08	114.06	137.81	176.69	215.16	
	9.6	7.2	6.5	6.4	7.4	7.8	7.8	8.9	10.9	12.0	8.5
Oceania	1.53	5.6	4.15	3.42	3.92	6.48	8.8	8.85	11.64	16.09	
	0.3	0.6	0.4	0.3	0.3	0.5	0.6	0.6	0.7	0.9	0.5
Other	68.91	64.68	96.89	146.06	163.16	199.51	217.11	236.21	236.29	259.39	
	11.9	7.2	9.8	12.3	12.5	14.3	14.8	15.3	14.6	14.4	14.3
Total	581.1	900.63	989.57	1183.17	1309.58	1395.77	1468.79	1548.47	1615.02	1796.17	

Source OECD (2019)

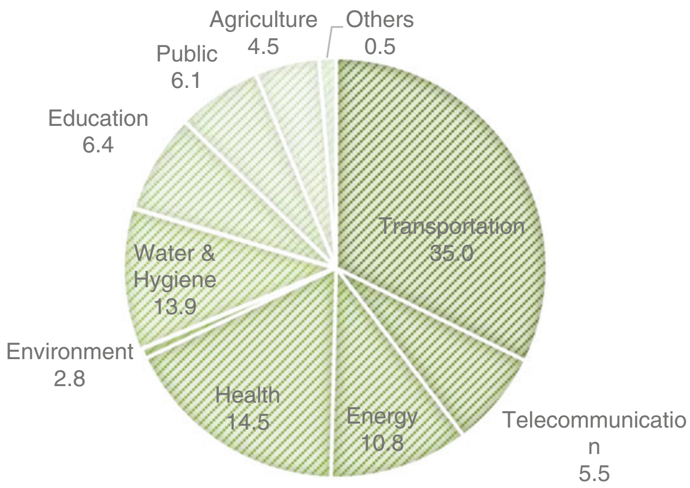


Fig. 2.3 EDCF by Sector (1987–2020). *Source* The Export-Import Bank of Korea (2021)

it became a member of DAC in 2010. In 1991, the total annual ODA of KOICA was just US$22.8 million, but by 2019, this had increased more than 30 times to US$ 691.0 million. Regionally, Asia has been the largest recipient of KOICA funding (34.4%), followed by Africa (25.7%) and Central and South America (12.3%) in 2019. Figure 2.4 shows KOICA's ODA spending by sector in 2019. Education has been the leading beneficiary sector (24.6%), followed by public administration (16.9%), health (14.7%), agriculture (11.7%), and industry and energy (10.8%).

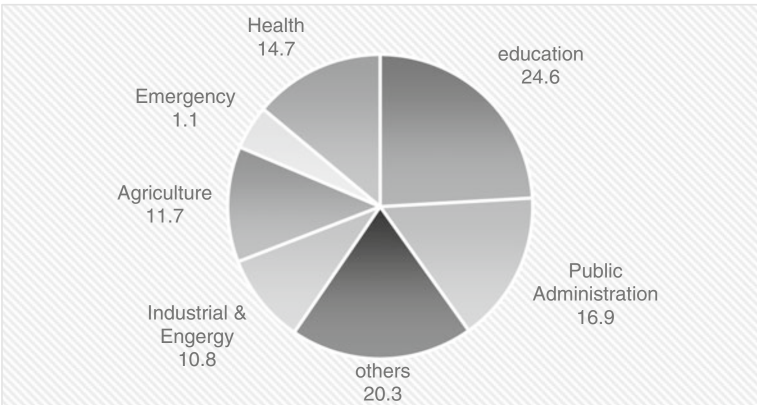


Fig. 2.4 KOICA's ODA by Sector (2019). *Source* KOICA (2020)

Tertiary Educational Collaboration Between Asia and Korea

As an emerging donor, Korea cooperates with other Asian countries in a variety of areas, including educational collaboration. From 2013 to 2019, Korea's ODA in the education sector was focused mainly on the post-secondary sector, accounting for around 46.6% of educational funding, followed by the secondary sector (23.7%), basic education (15.8%), and unspecified education levels (13.9%). Since the Incheon World Education Forum in 2015, Korea, through the CIDC, has committed to the international community a US$2 billion fund named 'Better Life for Girls,' for the period 2016 to 2020. This includes funding for activities in education, health, and capacity building (CIDC, 2016). Korea has close affinity, in cultural, social and economic aspects, with other countries in the East Asia region, which fosters extensive connections and collaborations. Furthermore, Korea has tasks and challenges for promoting a new wave of collaboration following the launch of the ASEAN Economic Community (AEC) in 2016.

The Educational ODA of KOICA and EDCF

As a main grant agency, KOICA's educational ODA by region also focuses on Asia. Between 1991 and 2019, the region accounted for 46.5% of funding for the sector, Africa was the next largest beneficiary (22.2%), 10.3% of grants spent in the Middle East, and followed by Central and South America (10.1%). According to the KOICA's Education Mid-Term strategy (2016–2020), the vision is to contribute to sustainable development achievements through human resource development in developing countries. For this, there are three objectives: (i) to provide basic quality education, (ii) to train skilled technical manpower, and (iii) to cultivate highly skilled individuals. From 2004 to 2013, the main five beneficiary countries in Asia have been Vietnam (16.8%), Afghanistan (12.0%), Indonesia (9.4%), Philippines (8.4%), and Cambodia (7.2%). The US$2 billion fund for the 'Better Life for Girls' initiative is targeted at girls aged eight to 22 in developing partner countries. The main programs are 'Girls' Rights to Education,' 'Girls' Rights to Health,' and 'Girls' Rights to a Profession.' For 'Better Life for Girls,' seven countries in the world are targeted, including Laos, Myanmar, Nepal, and Cambodia in Asia, and Ethiopia, Mozambique, and Tanzania in Africa.

EDCF's educational ODA in the period 1991 to 2013 has covered 30 projects in 19 countries, with a total value of US$725.22 million. From 1991 to 2013, the educational EDCF spending by region has focused on Asia (47.9%), followed by Africa (29.8%), Middle East Asia (12.5%), and Central and South America (9.7%). Ten of the 30 projects under EDCF have involved higher education, including four projects in Vietnam and one each in Laos, Bangladesh, Sri Lanka, and Jordan. A further 20 projects have focused on vocational training, including nine in Asia and seven in Africa. The higher education projects included the establishment of Luang

Prabang National University in Laos, five vocational colleges in Vietnam, a national university in Rwanda and a pharmacy university in Hanoi. Most of the establishment costs for the national level universities have involved civil works and building construction; equipment and facilities; and consulting services for capacity building.

Ministry of Education

The Ministry of Education has some funds for collaboration programs, especially for the tertiary education sector (see Table 2.2). It oversees six major programs:

1. Korea's Global Education Cooperation Program, launched in 1992, consists of scholarship programs, exchange programs, study tours, and training for science and engineering. Among its notable initiatives is the 'Global Korea Scholarship Program,' which in 2020 covered 3,800 students and amounted to US$60 million.
2. The Global Educational Exchange Program coordinates and communicates with international agencies such as UNESCO, OECD, APEC, and ASEM. The Global Education Cooperation Program is bilateral but the Global Educational Exchange Program is multilateral. The budget of this program was about US$33 million in 2020.
3. The CAMPUS Asia-Korea, Japan, China program launched in 2010. There are a lot of exchange programs of students, and consist of 17 units and take part in 40 universities. This program covers students at university and college levels, as well as those who have graduated from an educational institution. Its value in 2020 was about US$40 million.
4. The ASEAN Cyber University Project covers four countries in the Indochina peninsular, including Cambodia, Laos, Myanmar, and Vietnam (CLMV). It has installed an e-learning center in the universities involved and provided a server, multimedia studio and facilities, as well as content development, training for

Table 2.2 Korea Ministry of Education's major collaboration programs (Unit: millions US$)

Name of project	2019	2020
Global Education Cooperation Program	52,738	60,171
Global Education Exchange Program	3,303	3,317
Campus Asia Program—Korea, Japan, and China	3,746	4,035
ASEAN Cyber Project	589	526
UNESCO UNITWIN Program	1,848	3,490
Leading University for Int'l Cooperation Project	3,587	3,135

Source Chang (2015), 1 US$ = 1,120 KRW

managers and developers, and the operation of a hub. In order to have effective management, Korea and CLMV set up the 'committee for cyber university management,' which consists of five related ministries and five cooperative universities and representatives from the ASEAN University Network (AUN).
5. UNESCO UNITWIN Program is cooperation program between universities in various areas, such as research, training, and development program. Its value in 2019 was about US$19 million.
6. The University Collaboration Program consists mainly of the 'Leading University for International Cooperation Project,' which was launched in 2012 and aims to strengthen and empower universities in developing countries through capacity development. Currently, there are 21 project activities being implemented, in Asia, Africa, and South America, such as Cambodia, Vietnam, the Philippines, Nepal, Sri Lanka, Laos, Mongolia, Myanmar, Ethiopia, Egypt, Ghana, Tanzania, and Peru. The project covers the establishment of new department and regional development cooperation programs for self-reliance and growth. Programs mainly consist of new department support and capacity development for teaching and research staff, linked to the Global Korea Scholarship Program.

The Argument and Critical Discussions of Korean Educational ODA: Focusing on the Result of Integration Evaluation

Before becoming a DAC member, Korea received special peer review from DAC in 2008, during which DAC gave a recommendation for the integrated evaluation of concessional loans and grants. In May 2009, the Korean government accepted the recommendation. The integration evaluation of the educational ODA was conducted in December 2014 by a sub-committee for evaluation, chaired by the Deputy Minister of the Office for Government Policy Coordination. The objective of this evaluation was to improve the tasks for effective implementation of the educational ODA. It involved the evaluation of structural systems and implementation of educational ODA through the three major agencies of KOICA, EDCF and the Ministry of Education. The evaluation period covered four years, from 2009 to 2012, and included 16 projects. The results created critical discussions of Korean educational ODA. First, the review of the structural system was found to lack an integrated educational ODA policy and strategy across the whole of government—only KOICA had goals and targets for educational ODA. Second, there was no cooperative system for linking the relevant agencies. Third, expertise for implementing educational ODA was found to be limited. Despite there being a pool of consultants, there were limited education and training programs for the improvement of human resources. Fourth, difficulties in managing fieldwork, due to the lack of officers in KOICA and EDCF, and the lack of a direct network in the Ministry of Education, were identified. In the implementation review, implementation plans, such as feasibility studies and indicators for measuring and evaluating achievements, were found to be lacking. Nor was there a system for mid-term evaluation and effective monitoring of implementation, or follow-up to ensure sustainability during the completion stage. As a result of integrated evaluation, the committee gave five recommendations for effective project implementation of educational ODA:

I. set up an integrated strategy on educational ODA, and a whole government approach;
II. strengthen the cooperative system among the agencies;
III. make better use of human resource expertise;
IV. strengthen pre-project surveys, feasibility studies and project management; and
V. strengthen sustainable management through follow-up cooperation and linked relations.

Case Study on Partnership

Before Korea became a DAC member, DAC pointed out the overlaps and inefficiencies associated with the division of the ODA system into grant and concessional loan sections. DAC recommended the implementation of an efficient mechanism for concessional loans and grants for developing partner countries through selection and focus on the project. As a result, the Korean government decided to link the programs of concessional loans and grants. Examples of this policy in education include the Luang Prabang National University Establishment Project (LNUEP) by EDCF from 2005 to 2007 and the empowerment and capacity development project of Souphanouvong University (SU) by KOICA, from 2015 to 2017 (Table 2.3).

Souphanouvong University is a national university in Luang Prabang, the old capital of the Lao People's Democratic Republic (PDR). It was established in accordance with the Prime Minister Decree, No 169/PM, dated November 2003, in order

Table 2.3 Comparison of EDCF and KOICA interventions in Souphanouvong University

Contents	EDCF	KOICA
Project name	Luang Prabang National University Establishment Project	Empowerment and capacity development project
Period, amount	2005–7, US$22.7million	2015–17, US$3 million
Components	Civil works and building construction Supplying equipment, facilities Expertise Fellowship training Consulting services	Scholarship program Expertise for capacity development Curriculum and textbook development Renovation of buildings and supplying IT equipment
Expected outcome	Establishment of new campus (9 new departments, main building, auditorium, cafeteria, library, dormitory, facilities and equipment)	140 textbooks, 45 master degree holders, consulting for university management

to provide quality human resources to carry out the mission of the socio-economic development of the northern region of Laos. The university is named after Prince Souphanouvong, who was the first President of the Lao PDR. In 2005, the Government of the Lao PDR decided to take a US$22.7 million loan from the Korean EDCF for extending and developing the university. The first EDCF project established the new campus of SU and consisted of building construction, supplying equipment and facilities, fellowship training and consulting services for activities such as curriculum and textbook development, and university management. This project focused on the hardware components necessary for SU to extend from the old campus to a new campus (The Export–Import Bank of Korea, 2011). When the university was established, it had just six undergraduate bachelor degree programs and could not cover the eight provinces of Northern Laos. This first project created nine departments to run a total of 15 programs. In the subsequent ten years, SU has grown both from within and outwardly. Following completion of the EDCF project, it has cooperated with Korea in a variety of areas, such as the awarding of scholarships to three to four SU teachers a year, under the Global Korea Scholarship. By 2020, the six faculties in SU ran 26 undergraduate bachelor degree programs, each with courses of four years in duration. In 2019, SU had 308 teaching staff and 123 research staff members. The number of SU students enrolled the academic year 2018–2019 were 3,297 students for bachelor program, 34 students for master program, and 76 students for continuing program, as shown in Table 2.4.

SU has established academic relations and cooperation with 33 universities and organizations in neighboring countries such as Vietnam, China, Cambodia, Thailand, and the Republic of Korea. The main cooperation activities are focused on scholar and student exchanges, library books, and computer supplies, as well as international seminars, workshops, and meetings. According to its 2020 strategic plan, SU wants to increase the number of new programs and needs more qualified staff and upgraded curricula and textbooks plus capacity development for staff (Souphanovong University, 2015). The Korean government decided to extend its support to SU through a linked policy of concessional loans and grants and a focus on the educational sector for a developing partner country. The ‘Empowerment and capacity development project of Souphanouvong University’ was funded by KOICA, amounting to US$3 million in funding between 2015 and 2017. This project is a symbol of a continuous program as well as of effective cooperation for sustainable development. The project focused on activities such as a master’s program for staff members; capacity development and an upgrade of the curricula and textbooks for staff members’ empowerment; special lectures from experts; co-research work; and management and operation consultation. A significant number of people from Korean universities, NGOs, enterprises, and other institutes support SU every year. In addition, the Korea Advisory Committee, consisting of professors and researchers from universities and research institutes, consults and cooperates with the university, contributing to the development and improvement of SU. Furthermore, the Korean government continues to support the development of SU by building connections between programs involving universities, enterprises, civil society organizations (CSOs), and institutes in Korea

Table 2.4 Souphanouvong University in Profile

	Professor								Enrollment					
	Doctor		Master		Bachelor		Diploma		Bachelor		Master		Continuing Program	
	T	F	T	F	T	F	T	F	T	F	T	F	T	F
Education	1	0	29	4	39	18	0	0	534	243	9	2	76	20
Agriculture and forestry	3	0	38	8	17	7	0	0	569	312	–	–	–	–
Economics and tourism	2	1	34	11	23	6	0	0	941	504	25	8	–	–
Architecture	1	0	14	2	18	6	0	0	382	77	–	–	–	–
Engineering	2	0	27	2	20	3	1	0	576	148	–	–	–	–
Language	1	0	19	8	19	7	0	0	295	159	–	–	–	–
Total	10	1	161	35	47	1	1	0	3,297	1,443	34	10	76	20

Source Souphanouvong University (2020) and Laos in near future. The government has focused on sustaining effective cooperation with SU because of its important role in the development of northern Laos and contribution to poverty reduction and inclusive growth in the Lao PDR.

Conclusion

Sustainable Development Goals (SDGs) and Education

As an emerging donor, Korea announced to the international community a new framework and strategy for ODA, including educational cooperation. In reviewing the current situation and policies on development cooperation, it needed to develop relations and cooperate with internal and international stakeholders. The 193 UN member countries agreed on the new Sustainable Development Goals (SDGs) in September 2015, involving 17 goals and 169 targets to be reached by 2030 (UN, 2015). The fourth SDG is focused on education to 'Ensure inclusive and quality education for all and promote lifelong learning.' This goal includes six targets, with three related to tertiary education. These include:

(a) *By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.*
(b) *By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.*
(c) *By 2020, substantially expand globally the number of scholarships available to developing countries, in particular the least developed countries, small island developing states and African countries, for enrollment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programs, in developed countries and other developing countries.*

In order to achieve these goals and targets, both donors and developing partner countries are likely to seek to extend their cooperation. The next task for tertiary education in Korea is to focus on equal access, quality education, employment, decent jobs, and scholarships for empowerment. Depending on the status of partner countries, it should support the reform of tertiary education, in cooperation with international communities.

New Cooperation Approach: Network Partnership Model

The effective achievement of SDGs involves a number of issues. The first is financial. The 17 SDG goals present a big challenge for donors as well as partner countries and require secure finance and funding derived from the sound operation of the economy at global and national levels. For effective cooperation, there is a need for collaboration among all stakeholders, such as countries, private enterprises, and NGOs. There is also a need for new emerging donors and an emphasis on the roles of the private sector and bilateral as well as multilateral relationships. In addition, it is important to monitor and evaluate the implementation of SDGs and to develop an evaluation matrix and index for implementation. Furthermore, there is a need to consider the changes of the international political economy such as political trends in middle Asia (security and human rights) and East Asia, and international trade, exchange rates and resources. The tasks of the ODA for achievement of the educational SDG go beyond the Millennium Development Goals that were limited to primary education. Instead, it covers lifelong education, from cradle to grave, and as such requires a larger budget. It should focus not only on the quality of higher education but also on the economic structures in developing partner countries. SDGs are dependent on improved employment prospects in partner countries, which require consideration of their industrial structure and the international labor market, and demands for a well-qualified work force. The SDGs are also dependent on the provision of education for sustainable development in order to build the knowledge and skills that link all the SDGs. In conclusion, there is a need to set up a new approach and strategy for the adaptation of SDGs including sustainable development, quality education, decent jobs and employment, and the empowerment of capacity. For this, there is a need to consider consistent and continuous long-term strategies and approaches that do not involve standing alone, but building the collaboration needed to create synergy across borders. The set up of global partnerships and collaboration needs to demonstrate greater harmony and increase the involvement of public–private partnerships. The Korean case study suggests that a network partnership model can constitute a new approach in development cooperation in order to achieve the SDGs in education as well as in other sectors such as health and agriculture (Fig. 2.5).

As indicated in Fig. 2.5, this model has four stakeholder networks: public, industry, civil society organizations (CSO), and academy. These networks include roles for government and related public agencies; businesses and private companies; NGOs, foundations and NPOs; and universities and other academic institutions. The objectives of this model, as the Korean example shows, is to build effective development cooperation through the focus on programs and projects in collaboration with partner countries. All these components link together to form a network and platform for cooperation across education and research involved in the implementation of programs and projects. As a center of regional development, universities may in future collaborate with other partners, social networks, and regional partnerships. This is a way forward to develop cooperation for tertiary education collaboration and achieve sustainable development.

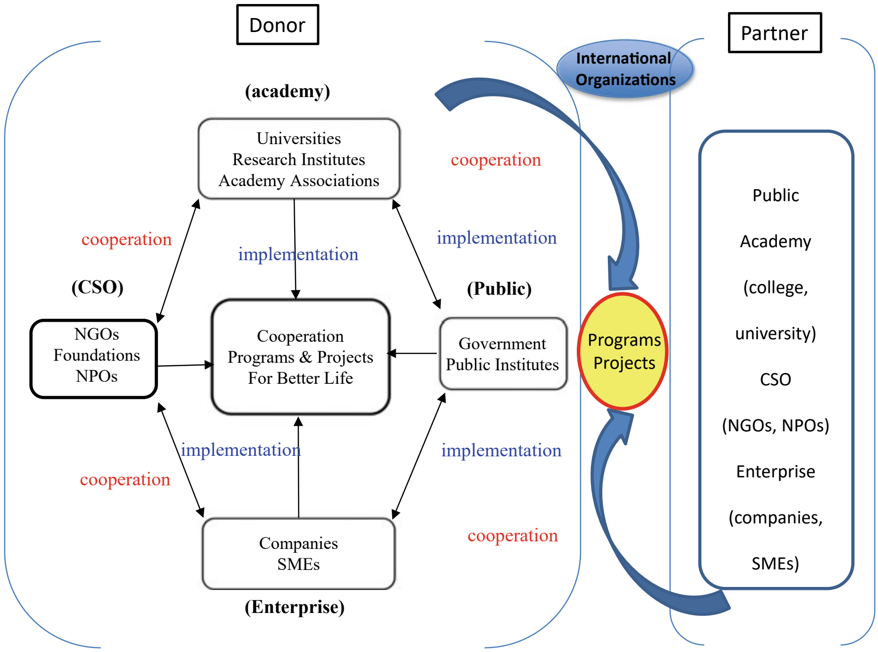


Fig. 2.5 Network partnership model. *Source* Chang (2017)

References

Chan, W. W. Y. (2004). International cooperation in higher education: Theory and practice. *Journal of Studies in International Education, 2004*(8), 32.

Chang, J. S. (2015). Higher education cooperation and future tasks between Korea and Asia. In *Proceeding of Comparative Education Society of Hong Kong (CESHK) 2015 Annual Conference.*

Chang, J. S. (2017). A study of linkage cooperation and sustainable development for capacity development. *International Development and Cooperation Review, 9*(2), 57–83.

Committee for International Development Cooperation. (2016). *The 24th CIDC Meeting Agenda.*

Committee for International Development Cooperation. (2017). *Korea's ODA white paper*.

Committee for International Development Cooperation. (2021). *The 36th CIDC Meeting Agenda.*

Government of the Republic of Korea. (2017). *Memorandum for the DAC peer review: Republic of Korea.*

Government of the Republic of Korea. (2012). *Memorandum for the DAC peer review: Republic of Korea.*

Feuer, H. N., & Hornidge, A.-K. (2015). Higher education cooperation in ASEAN: Building towards integration or manufacturing consent? *Comparative Education*, *51*(3).

King, K. (2009). Higher education and international collaboration: The role of academic collaboration and in the developing world. In D. Stephens (Ed.), *Higher education and international capacity-building* (pp. 33–50). Symposium Books.

KOICA. (2020). *2019 Annual report*.

Li, A. (2022). Nurturing a good neighbour: A review of Sino-Kazakhstani higher education cooperation. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 31–42). Springer. http://doi.org/10.1007/978-981-19-5104-6_3

Marginson, S., Kaur, S., & Sawir, E. (Eds.). (2011). *Higher education in the Asia-Pacific: Strategic responses to globalization.* Higher Education Dynamics (Vol. 36). Springer.
Nakaburo, M., Barrett, E., McEvoy, P., & Munck, R. (2010). 'Best practice in North-South research relationships in higher education: The Irish African partnership model. *Policy & Practice: A Development Education Review, 10*(Spring), 89–98.
OECD. (2013). *KOREA: DAC peer review 2012.*
OECD. (2019). *DAC statistics.*
Souphanouvong University. (2015). *Overview of strategic development plan 2016–2020.*
Souphanouvong University. (2020). *SU(AY2018–2019).*
The Export-Import Bank of Korea. (2011). *Lunag Prabang National University establishment project*. Ex-post Evaluation Report 2011-2-1.
The Export-Import Bank of Korea. (2021). *2020 EDCF annual report*.
United Nations. (1948). *Universal declaration of human rights.* General Assembly.
United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. General Assembly.
UNESCO. (2000). *The Dakar framework for action.* World Education Forum.
World Education Form. (2015) *Incheon declaration.*
Yonezawa, A., Kitamura, Y., Meermanm, A., & Kuroda, K. (Eds.). (2014). *Emerging international dimensions in East Asian higher education.* Springer.

Ji-Soon Chang is Visiting Professor at the Sangmyung University, who served as a senior fellow in the Institute of International Studies (IIS) at the Seoul National University, S. Korea. Prof. Chang's area of specialty is research and evaluation in development cooperation and international education cooperation. Since 2001, he has been conducting surveys and evaluations in various countries of Asia and Africa for almost 21 years. Prof. Chang had worked in a capacity of an executive consultant for education projects funded by the Korean Government in Cambodia (2003–2005) and Lao PDR (2005–2007, 2015–2017). Prof. Chang served as a consultant at the Asia Development Bank (ADB), research professor at the SungKyunKwan University (SKKU), Seouland associate fellow at the Korea Research Institute for Vocational Education and Training (KRIVET) at Sejong City. Also, Prof. Chang served as a director of the International Development Cooperation Department at the Prime Minister's Office from 2010 to 2014. He contributed to an establishment of the ODA national policy framework. Prof. Chang holds a Ph.D. in education and he specialises in human resource development, higher education and international cooperation and publishes in the fields of education, health, agriculture, heritage & tourism, and ICT education.

Chapter 3
Nurturing a Good Neighbour: A Review of Sino-Kazakhstani Higher Education Cooperation

Aisi Li

Introduction and Conceptual Framework

Despite being neighbouring countries, educational exchange between China and Kazakhstan has attracted little attention. Two reasons may have contributed to this current situation. Firstly, most studies of China-Central Asia relationships tend to focus on political and economic ties (Libman & Vinokurov, 2011), while "rivalry" is a term often seen when describing international relations in Central Asia (Galamova, 2007; Khodzhaev, 2009; Walsh, 1993). These arguments often cast doubt on genuine cooperation in the cultural sphere, leading to a handful of studies in educational cooperation and exchange (Chang, 2022). Secondly, unlike the China-Western higher education partnerships, which concentrate on more affluent and developed areas, China's educational cooperation with Kazakhstan often takes place in the less-developed, ethnically diverse, but strategically important North-Western border regions, particularly in Xinjiang. Similar to Yang's (2012) depiction of the higher education exchanges between China and ASEAN countries, China–Kazakhstan higher education cooperation also appears to be fulfilled by "quite achievers", which forms a somewhat different picture from the internationalization along the coastal area. These two reasons have drawn an interesting picture of Sino-Central Asia higher education cooperation: China and Central Asia have frequent interactions in energy, security cooperation and trade (Khodzhaev, 2009), which have often stimulated the expansion of educational cooperation in geographically significant areas in China, yet insufficient examination has been conducted to understand the connection between these educational cooperation and regional development.

In fact, higher education cooperation between China and Kazakhstan is a good example of how two neighbouring countries leverage higher education to assist the development of their relations. It is also a case in point where higher education can be

A. Li (✉)
Nazarbayev University, Astana, Kazakhstan
e-mail: li.aisi@nu.edu.kz

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_3

considered as a part of China's "systematically planned soft power policies" (Yang, 2012, p. 487). The vital role of higher education into bridging China and Kazakhstan is evidenced by the Chinese president Xi Jinping's speech at Nazarbayev University in 2013:

> In order to promote the communication of the young people within the Shanghai Cooperation Organization (SCO) framework, China will provide 30,000 government scholarships to students from SCO members in the next 10 years, and invite 10,000 teachers and students to attend training programsemes in China. I hope you will take these opportunities to study in China. … I believe, the young people of the two countries will become the messenger of China-Kazakhstan friendship and contribute their youth and strength to the development of bilateral comprehensive strategic partnership.

Through a review of the development of China–Kazakhstan higher education relationships since 1991, this chapter argues that China's higher education presence in Kazakhstan not only benefits China's national plan to develop its Western border region but also comprises an essential part of its regional security strategy.

This review of Sino-Kazakhstani higher education cooperation is informed by the concepts of regionalization. Regionalization is understood as "formal collaboration between two or more states" with "the idea of increasing competitiveness of member countries towards the outside world as well as encouraging inter-regional interactions" (Yang, 2012, p. 488). An important feature of regionalization, as pointed out by Held, is that the members of a single region tend to have important historical and cultural connections (Held, 1999, as cited in Verger & Hermo, 2010). Such similarities and connections are considered to assist ant regional dialogue and cooperation. As a result, they are generally viewed as prerequisites of regionalization. Within the context of regionalization, higher education, with its multiple functions, plays an essential role in maintaining and facilitating the cross-border collaboration with their multiple functions. Higher education institutions, particularly Chinese universities, are a main agent of cultural diplomacy (Hayhoe, 2014, p. 167). In addition, they provide cross-border relationships with "continuous global flows of people, information, knowledge, technologies, products and financial capital" (Marginson & van der Wende, 2006, p. 4). Despite there are doubts about genuine cooperation between China and Kazakhstan, the concept of regionalization highlights the historical connection between two states, which is especially useful in understanding the interactions between China and Kazakhstan.

Sino-Kazakhstan Higher Education Cooperation: An Overview

Previous research shows that after establishing diplomatic relations with the Central Asia republics, the Chinese government "mobilized a large group of Chinese scholars to complete a comprehensive study of the region, established research centres in major cities (Beijing, Shanghai, Lanzhou, Urumqi, etc.) and funded extended research travel for scholars to the Central Asian republics" (Khodzhaev, 2009, p. 15).

These research activities had identified the weaknesses and risks in Central Asia, and the Chinese government subsequently "attached high priority to protecting Central Asia from any excessive growth of influence from the great powers and to turning the region into a beneficial sphere of influence" (*ibid*, Khodzhaev, 2009, p. 15). The purpose of the regionalization between China and Central Asia has taken on a deep imprint of political and economic benefits from the early days.

Among the Central Asian republics, Kazakhstan's frequent interactions and exchange with China deserves special attention. By 2012, China had become the largest trading partner of this resource-rich country, and Kazakhstan was is China's second largest trade partner in the Commonwealth of Independent States and the third largest destination of China's overseas investment (China.org.cn, 2012). Yet trade alone does not represent the ethnic and cultural connections between these two countries. According to the latest census, there are about 1.5 million ethnic Kazakh in China, a substantial number when taking into consideration that the total population of Kazakh remains at stays at 15 million worldwide. In addition, multiple ethnic groups live across the border, including Uygur, Han, Kyrgyz, Tajik and Uzbek. The frequent mobility and close connections of the people have provided another platform for exchange and interactions that are not covered at the state level (Laruelle & Peyrouse, 2009).

While China is proactively seeking to increase its regional influence, Kazakhstan adopts a more cautious approach. Surrounded by the rising global powers, Kazakhstan has been carefully moving between its giant neighbours of Russia and China. It has been argued that in a time when Kazakhstan-Russia relationships were "increasingly contentious" and, at the same time, the West was "unable to provide significant investment into Kazakhstan's economy", China took the opportunity and "cast itself as Kazakhstan's major economic and implicitly geopolitical partner" (Shlapentokh, 2014, accessed online). The same author also perceives that "if no major military or geopolitical shake up will compels Astana to move closer to Moscow, "the China perspective will likely dominate Kazakhstan's actual foreign policy" due to China's rising economic power (*ibid* Shlapentokh, 2014).

Although there seems to be rising prospects of bilateral cooperation between China and Kazakhstan, the potentials are yet to be fulfilled due to a variety of reasons, including among which, the lack of human recourses. The commercial and political cooperation between China and Kazakhstan is on the rise, but the supply of professionals and skilled workers that would contribute to further development is lagging behind. Qualified professionals who speak languages of the region as well as being educated in specialist areas are in high demand (Wang, 2008, p. 81). The shortage of well-trained human resources has become a major pushing factor in promoting cross-border educational cooperation.

Inter-governmental agreements represent the highest level of educational cooperation, and they usually set out the framework and directions of the cooperation.

Following the establishment of the diplomatic relationship, a series of agreements have been signed between the Kazakhstani and Chinese governments that lay out the landscape of higher education cooperation. In the majority of these joint statements, education cooperation was mentioned in general terms. However, a few of the documents highlighted the particular educational areas the two governments sought close cooperation, and provides more depth in understanding the educational cooperation between theme two.

The, 2006 Joint Statement proposed to expand the collaboration in technology and humanities areas through establishing technology parks (Ministry of Foreign Affairs of The People's Republic of China [PRC], 2006). In 2007, the Joint Statement stressed collaborative research in archaeology and historical documents (The People's Republic of China, 2014), while in 2008, the emphasis shifted to collaborative research in biological technology (Ministry of Foreign Affairs of the PRC, The People's Republic of China, 2008). Some of the cooperation was propelled by recent events. For example, the call for collaboration in seismology emerged after the Sichuan earthquake that hit Sichuan (Ministry of Foreign Affairs of the PRC, The People's Republic of China, 2008).

The Agreement on Educational Cooperation between the Ministry of Education of the People's Republic of China and the Ministry of Education and Science of the Republic of Kazakhstan was signed in 2003. This was the first comprehensive Sino-Kazakhstani governmental document on educational cooperation, and it set up the framework of educational cooperation, including with an action plan. It stated the areas of educational cooperation: educational reform; textbook and pedagogical materials development; teaching staff and student exchange; and the study and promotion of national languages (Ministry of Education of the PRC, 2003).

Multi-lateral organizations provide another major platform for educational cooperation. The Shanghai Cooperation Organization (SCO) is especially important in China-Central Asia collaboration. Despite initially focused on security cooperation, the SCO has become an important channel for educational cooperation between China, Russia and Central Asia.

It is argued that the importance of SCO comes from the two biggest members of the organization, China and Russia (Naarajärvi, 2012, p. 115). The Chinese government regarded the organization as "a model for a new world order of regional cooperation" and emphasized that it was a "partnership" instead of an "alliance" (People's Daily, 2001), representing China's struggle to build a new "multi-polar" international and economic order (Ma, 2002). Although the SCO was originally founded to tackle border disputes and later on security concerns, education cooperation is becoming an important area of cooperation. In 2006, the Shanghai Cooperation Organization member states signed the Agreement on Inter-government Educational Cooperation of the Member States of the Shanghai Cooperation Organization, setting the framework and mechanism for educational cooperation among its members. It aims to promote academic mobility, improve quality assurance systems and lead to mutual recognition of diplomas and regional harmonization of higher education (Yang, 2009). Two activities function as the main education cooperation mechanisms within the SCO: ministerial meetings and education experts working groups, as well as "Borderless Education Week" and university president forums (Xu, 2012). Although educational exchange used to be fragmentized and seen as a spin-off of the SCO, it has gradually been formalized and thus become an integral part of the SCO.

The SCO has a significant impact on the internationalization of higher education in China, particularly for higher education institutions in Xinjiang, as will be discussed later in this chapter.

The New Silk Road Economic Belt represents the Chinese government's most recent initiative in regional cooperation. The concept of New Silk Road Economic Belt was officially proposed by the Chinese President Xi Jinping in his speech at Nazarbayev University mentioned at the beginning of this chapter. The conceptual route runs from China through Central Asia and the Middle East to Western Europe (Tiezzi, 2014). Xi calls for closer cooperation in policy, infrastructure, trade, currency and culture along this enormous region (Xi, 2013).

The New Silk Road Economic Belt is seen by some critics as the projection of China's economic ambitions in Asia and Europe. The vast area spanning through two continents seems too large and diverse to be one coherent region. The working concept has yet to produce a concrete road map towards regionalization. Nevertheless, it has already been argued that through the economic partnerships, China hopes to gain closer cultural and political relationships with individual countries or regions along the New Silk Road (Tiezzi, 2014).

Although a road map of the New Silk Road is still under construction, Xi clearly articulated regional higher education partnership in the same speech, cited in the beginning of this chapter. The ten-year plan to provide 30,000 scholarships for students from the SCO member countries to study at Chinese universities, and to invite 10,000 teachers and students from the region's Confucius Institutes to participate in training programmes in China, have certainly demonstrated China's ambition to train graduates of the region. As Kazakhstan is a principal member of the SCO and occupies strategic location along the New Silk Road Economic Belt, this scheme of higher education partnerships can be interpreted as an important step towards forging closer Sino-Kazakhstani relationships, as well as an initial attempt to develop Sino-Silk Road cooperation. The role of higher education cooperation to facilitate cross-border cooperation in other areas is pronounced under the New Silk Road.

Case Studies of Sino-Kazakhstan Higher Education Cooperation

University of Shanghai Cooperation Organization

As mentioned earlier before, the SCO has created an important platform for China–Kazakhstan higher education cooperation. A significant progress within the SCO regarding educational cooperation is the establishment of the University of Shanghai Cooperation Organization (SCO University). Its foundation can be traced back to 2007 when Russia proposed to establish the University of Shanghai Cooperation Organization. The proposal was supported by the member states and the university was subsequently formed within the framework of the SCO in 2010. It emerged as a pilot project to create a network of already existing universities in SCO member states as well as in observer states, which would train specialists in designated areas, including regional studies, ecology, information technology, energy and nanotechnology (Shanghai Cooperation Organization, 2010). Recently, the areas have been expanded to include education and economics, and the levels of programmes have also been expanded from postgraduate only to include undergraduate (Xu, 2012).

The university takes the form of a network of participating higher education institutions from member countries. The participating institutes develop joint undergraduate and postgraduate degree programmes in the designated areas; provide professional training courses; engage in collaborative research; and as well as host academic conferences (University of Shanghai Cooperation Organization, 2022a). One distinct feature of the SCO University lies in its language of instruction. The SCO programmes are delivered in Chinese or Russian, or the official language of the country where the institute is located, while English can be used upon negotiation (University of Shanghai Cooperation Organization, 2022b).

China has been increasingly active in promoting the SCO University. In order to support its development, China's Ministry of Education has established a coordination office for this virtual university, and all incoming students enrolled in the SCO University programmes in China receive Chinese Government Scholarships (University of Shanghai Cooperation Organization, 2022c). To date, 73 higher education institutions from the SCO member countries have joined the SCO University. It aims to bringing regional cooperation and integration in the field of higher education among the SCO member states, developing internationally recognized degree programmes and accreditation systems and integrating with the Bologna Process (University of Shanghai Cooperation Organization, 2022c).

Confucius Institute

Confucius Institute is another major channel of China–Kazakhstan higher education cooperation through language training as well as awarding scholarships to study in China. Due to its influence in exporting Chinese culture and values, Confucius Institutes have been seen as China's most systematically planned soft power policy (Yang, 2010, p. 235). They also represent an important form of higher education cooperation, since the institutes, most physically located on university campuses, are usually created through a partnership between two academic institutions, one foreign and one Chinese, with the start-up funding from Hanban in Beijing (Paradise, 2009, p. 651). The Confucius Institute can be seen at one level as an attempt to increase Chinese language learning and an appreciation of Chinese culture, but at another level, it is part of a broader soft power projection in which China is attempting to win hearts and minds for political purposes (*ibid,* Paradise, 2009, p. 648–649). Xi's speech on allocating scholarships to students and teachers from the Confucius Institutes in the region precisely captures the unique role of these institutes. Apart from language training, Confucius Institutes also provide "Confucius Institute Scholarships" to "students, scholars and Chinese language teachers of other countries for pursuing a study in relevant universities in China" (Confucius Institute Scholarship, 2016).

There are four Confucius Institutes in Kazakhstan, located in four different cities (Almaty, Astana, Aktobe and Karaganda). These institutes are jointly run with four Chinese universities located in central and Western China (Xi'an, Lanzhou, Urumqi and Shihezi), among which two are universities in Xinjiang. The partnerships echoes the priorities of developing Western China through higher education cooperation with Central Asia, while Xinjiang has a unique role within this national policy.

Student Mobility

The Chinese Government Scholarships are another major effort to recruit students from Kazakhstan to study in China. Academics in China have argued that attracting Central Asian students to study in China is regarded as "beneficial to China's opening to Central Asia and the stability at the Chinese Western border" (Aizimaytil & Wu, 2011, p. 106). An increasing number of Central Asian students are studying in China. In 2013, more than 20,000 students from Central Asia studied in China, among whom about 2,200 were sponsored by Chinese Government Scholarships (China Radio International Online, 2014). Kazakhstan has played a leading role in sending students to China. In 2001, there were only 109 Kazakhstani students in China (China Association for International Education, 2001) and the number remained under 500 in 2004 (China Association for International Education, 2004). Since 2005, the number of Kazakhstani students has continuously increased and reached almost 10,000 in 2014 (Le, 2014), making Kazakhstan the eighth sending country to China (China Association for International Education, 2016). Currently, there are about 13,000 Kazakhstani students studying in China, while there are only around 1,000 Chinese students in Kazakhstan, the majority being among who are ethnic Kazakh. This imbalanced student mobility between Kazakhstan and China is said to reflect the poor quality of Kazakhstani higher education, the cost of living and the corruption in the system. It deserves more attention so as not to cause a "brain drain" in Kazakhstan (Kanafin, 2014).

Xinjiang as the "Quiet Achiever"

Since the independence of the Central Asia republics, Xinjiang has become "a springboard to strengthen Chinese presence in Central Asia and an area with favourable conditions for major investments" (Khodzhaev, 2009, p. 14). As early as the 1990s, research has suggested that economic cooperation with Central Asian republics "could aid the development of Xinjiang and adjacent provinces that have been low priorities in China's economic planning" (Walsh, 1993, p. 274). Similarly, educational cooperation between China and Kazakhstan is expected to assist the development of the higher education institutions in the Western region of China (Luo & Cai, 2010; Wang & Xue, 2006). This is particularly important when China has been looking for strategies to develop the Western part of the country, including among which, Xinjiang Uyghur Autonomous Region, bordering Kazakhstan. In addition, educational cooperation forms an important channel to connect China to Central Asia and thus plays a vital role in maintaining stability of China's Western border.

China's 14th Five-Year Plan of Education Development (2021–2025) specifically makes it a priority to support the international cooperation of higher education institutions in the border regions as well as to recruit more students from neighbouring countries (The Ministry of Education of the People's Republic of China, 2021). Xinjiang is a region that can benefit from this policy through closer higher education cooperation with Kazakhstan. It shares not only a 1,700 km border with Kazakhstan, but also "ethnic, linguist and cultural similarities, and therefore, students from the neighbouring areas can quickly adapt to the new environment" (Mei & Li, 2012, p. 61–62). In addition, well-developed infrastructure, low living costs and tuitions fees, increasing quality of higher education programmes in Xinjiang, as well as the prospect of a prestigious occupation and the higher salaries in Chinese and joint venture companies are also appealing to Kazakhstani students (Aizimaytil & Wu, 2011, p. 105; Mei & Li, 2012; Sadovskaya, 2013). In fact, a survey conducted in Almaty in 2012 reveals that ethic Kazakh respondents show a growing interest in Chinese education and/or specialization (Sadovskaya, 2013).

In fact, Xinjiang has actively sought cooperation with Central Asia countries, as a measure to internationalize and develop its higher education institutions (Wang & Xue, 2006). The number of international students in Xinjiang started to increase after the SCO was founded, and the majority of international students in this autonomous region are from SCO member countries (Guo, 2012, p. 42). Statistics reveal that more than 90% of international students are from Central Asia (Zhang, 2012, p. 70), most of whom are from Kazakhstan and Kirgizstan (Aizimaytil & Wu, 2011, p. 106). Since 2008, 100 one hundred Chinese Government Scholarships have been specifically allocated to Xinjiang annually (Guo, 2012, p. 44) to attract international students. Xinjiang's direction of internationalization of higher education looks towards its Western neighbours, with Central Asia as its focus (*ibid* Guo, 2012, p. 44). This direction of development is explicitly stated in its educational policy, including the Mid- and Long-Term Educational Reform and Development Plan of Xinjiang Uygur Autonomous Region 2010–2020. Moreover, attracting more students to study in Xinjiang is expected to benefit the local economy (*ibid*, Guo, 2012, p. 44). Xinjiang is in a disadvantageous position in recruiting students domestically. However, when it comes to recruiting foreign students from neighbouring countries, Xinjiang presents its regional advantage.

Xinjiang's active role in China–Kazakhstan educational exchange has been noted by Kazakhstani researcher Sadovskaya (2013), who writes noted that "the higher education institutions of the neighbouring Xinjiang Uyghur Autonomous Region are admitting more and more students from Kazakhstan and other countries of Central

Asia" (Sadovskaya, 2013). In addition, the SCO has organized various events in Xinjiang. For example, in 2012, Xinjiang hosted the Youth Representatives of the SCO as well as the training of the officials in education authorities of the SCO member countries (Xu, 2012).

With the increased opportunities through public and private funding, an on-going interest in studying in China, as well as China's national plan to admit more Central Asian students, the trend of Kazakhstani students studying in Xinjiang is expected to continue growing.

Conclusion

Several features have emerged through a review of China–Kazakhstan higher education cooperation in the past two decades. Firstly, cooperation between these two countries generally is extensively revolved around political and economic purposes. Regional security, border issues, energy supply and market expansion have been dominant in the discussion of China–Kazakhstan cooperation, while educational exchange appears to be serving the purposes of these areas. At policy level, this is reflected by educational policy shaped made to support the state policy in other areas. Secondly, the role of higher education in forging cross-border relations between China and other countries has again seen its importance. This approach has been studied extensively elsewhere, and the interactions between China and Kazakhstan have further emphasized its relevance in China's internationalization strategy. Thirdly, regionalization of higher education has been active in the remote border region of Xinjiang. The Chinese government has certainly attached political importance to it. However, this cross-border cooperation has also contributed to the higher education development of Xinjiang, making up for the disadvantages of funding and student recruitment that have hindered the growth of its higher education institutions.

Political and economic initiatives have indeed propelled higher education cooperation between China and Kazakhstan, and it stands as a main characteristic of the regionalization of higher education between these two countries. However, one should not ignore the reality that these two countries also shares similarities in ethnic, religious, linguistic and cultural spheres. These connections have also been sustaining educational exchange and cooperation, but they are rarely studied. The current review of the higher education cooperation has inevitably been heavily influenced by "political and economic realities" (Yang, 2014, p. 159). An in-depth empirical research, in particular, a "cultural perspective" (*ibid,* Yang, 2014, p. 159), into this area would likely add to our current understanding of internationalization and regionalization of China's higher education.

References

Aizimaytil, Y., & Xiaoyong Wu, X. Y. (2011). A new approach to education for international students on regional software in Xinjiang. *Journal of Xinjiang Normal University (Social Sciences), 32*(3), 104–108.

Chang, J. (2022). Sustainable tertiary educational collaboration: Korea's shared experiences and the challenges. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 13–29). Springer. http://doi.org/10.1007/978-981-19-5104-6_2.

China Association for International Education. (2001). *Number of overseas students studying in China 2001*. http://www.cafsa.org.cn/index.php?mid=6&tid=608.

China Association for International Education. (2004). *Number of overseas students studying in China 2004*. http://www.cafsa.org.cn/index.php?mid=6&tid=611.

China Association for International Education. (2016). *Number of overseas students studying in China 2016*. http://www.cafsa.org.cn/research/show-1662.html.

China Radio International Online. (2014). *Cultural exchange stimulates the development of the silk road economic belt*. http://gb.cri.cn/42071/2014/03/09/6071s4456080.htm.

China.org.cn. (2012). *Win-win for China and Kazakhstan*. http://www.china.org.cn/opinion/2012-02/27/content_24743753.htm.

Confucius Institute Scholarship. (2016). *Confucius Institute Scholarship Application Procedure, 1*(6). http://cis.chinese.cn/?p=154.

Galamova, V. (2007). Central Asia and China: New horizons of international regionalization. *Central Asia and the Caucasus, 3*(45), 76–88.

Guo, W. (2012). International students in Xinjiang and Xinjiang's swift development. *Study of Foreign Students in China, 2*(86), 42–46.

Hayhoe, R. (2014). Responses to Yang Rui's China's strategy for internationalization of higher education: An overview. *Frontiers of Education in China, 9*(2), 163–187.

Held, D. (1999). *Global transformations. Politics, economics and cultures*. Polity Press.

Kanafin, Z. (2014). *Chinese migration to Kazakhstan: Myths and realities*. http://www.caravan.kz/article/93343.

Khodzhaev, A. (2009). The Central Asian policy of the People's Republic of China. *China and Eurasia Forum Quarterly, 7*(1), 9–28.

Laruelle, M., & Sébastien Peyrouse, S. (2009). Cross-border minorities as cultural and economic mediators between China and Central Asia. *China and Eurasia Forum Quarterly, 2009*, 93–119.

Le, Y. (2014). Speech delivered at exhibition of higher education in China in Almaty. *Ministry of Foreign Affairs of the People's Republic of China*. http://www.mfa.gov.cn/mfa_chn/dszlsjt_602260/t1166752.shtml.

Libman, A., & Evgeny Vinokurov, E. (2011). Is it really different? Patterns of regionalisation in post-Soviet Central Asia. *Post-communist Economies, 23*(4), 469–492

Luo, J., & Wenbo Cai, W. B. (2010). *Comparision and reflection of Chinese and Kazakhsan higher education*. http://euroasia.cass.cn/news/406272.htm.

Ma, Y. (2002). *Regionalism and developing countries*. China Social Sciences Publishing House.

Marginson, S., & van der Wende, M. (2006). *Globalisation and higher education*. The OECD.

Mei, P., & Li, L. (2012). A SWOT analysis of developing foreign students education in Xinjiang. *Studies of Foreign Students, 2*, 61–64.

Ministry of Education of the People's Republic of China. (2003). *Agreement on educational cooperation between the ministry of education of the People's Republic of China and the Ministry of Education and Science of the Republic of Kazakhstan*. http://www.moe.gov.cn/publicfiles/business/htmlfiles/moe/moe_858/201005/87633.html.

Ministry of Education of the People's Republic of China. (2021). *The 14th five-year plan of education development (2021–2025)*. https://www.moe.gov.cn/.

Ministry of Foreign Affairs of The People's Republic of China. (2006). *China-Kazakhstan cooperation strategy in the 21st century*. http://www.gov.cn/gongbao/content/2007/content_503398.htm.

Ministry of Foreign Affairs of The People's Republic of China. (2008). *Sino-Kazakhstan joint statement*. http://www.chinanews.com/gn/news/2008/10-31/1433599.shtm.
Naarajärvi, T. (2012). China, Russia and the Shanghai cooperation organisation: Blessing or curse for new regionalism in Central Asia? *Asia Europe Journal, 10*(2–3), 113–126.
Paradise, J. F. (2009). China and international harmony: The role of Confucius institutes in bolstering Beijing's soft power. *Asian Survey, 49*(4), 647–669.
People's Daily (Renmin Ribao) (People's Daily). 15 June 2001.
Sadovskaya, Y. (2013). *Educational migration from Kazakhstan to China: A shift eastward?* http://www.cacianalyst.org/publications/field-reports/item/12843-educational-migration-from-kazakhstan-to-china-a-shift-eastward?.html.
Shanghai Cooperation Organization. (2010). *Chronicle of main events at SCO in 2010.* http://www.sectsco.org/EN123/show.asp?id=255.
Shlapentokh, D. (2014). Kazakhstan drifts to China amid tension with Russia. *The Central Asia-Caucasus Analyst.* http://www.cacianalyst.org/publications/analytical-articles/item/12888-kazakhstan-drifts-to-china-amid-tension-with-russia.html.
The People's Republic of China. (2006). *China-Kazakhstan cooperation strategy in the 21st century.* http://www.gov.cn/gongbao/content/2007/content_503398.htm.
The People's Republic of China. (2014). *Sino-Kazakhstan joint statement*. http://www.fmprc.gov.cn/chn//gxh/zlb/smgg/t352850.htm.
Tiezzi, S. (2014). *China's 'new silk road' vision revealed.* http://thediplomat.com/2014/05/chinas-new-silk-road-vision-revealed/.
University of Shanghai Cooperation Organization. (2022a). *Introduction of the University of Shanghai cooperation organization.* http://www.usco.edu.cn/CHS/dxjj/.
University of Shanghai Cooperation Organization. (2022b). *Overview of the University of Shanghai Cooperation Organization.* http://usco.cnu.edu.cn/overview.asp.
University of Shanghai Cooperation Organization. (2022c). *Vision and strategy of the University of Shanghai cooperation organization.* http://www.usco.edu.cn/CHS/ywzx/2013c0529/183.htm.
Verger, A., Javier, P. H., & Hermo, P. (2010). The governance of higher education regionalisation: Comparative analysis of the Bologna process and MERCOSUR-Educativo. *Globalisation, Societies and Education, 8*(1), 105–120.
Walsh, J. R. R. (1993). China and the new geopolitics of Central Asia. *Asian Survey, 1993*, 272–284.
Wang, H. (2008). Regional economic cooperation in Central Asia under the framework of Shanghai cooperation organization. *Journal of Xinjing Normal University (Social Sciences), 29*(2), 76–83.
Wang, Z. Q., Zhenquan, X. S., & Xue, S. (2006). *Education space of central Asian countries and its message.* Retrieved July 20 2014, from http://www.cnsaes.org/homepage/saesmag/jyfzyj/2006/5/gj060513.htm.
Xi, J. P., & Jingpin, J. (2013). *Speech at the Nazarbayev University.* http://news.xinhuanet.com/world/2013-09/08/c_117273079_2.htm.
Xu, H. (2012). *Education cooperation of the Shanghai cooperation organization.* http://studysco.cass.cn/shyj/hps/201311/t20131125_880214.html.
Yang, S. (2009). *Education cooperation of Shanghai cooperation organization.* Retrieved July 20, 2014, from http://euroasia.cass.cn/news/60993.htm.
Yang, R. (2010). Soft power and higher education: An examination of China's confucius institutes. *Globalisation, Societies and Education, 8*(2), 235–245.
Yang, R. (2012). Internationalization, regionalization, and soft power: China's relations with ASEAN member countries in higher education. *Frontiers of Education in China, 7*(4), 486–507.
Yang, R. (2014). China's strategy for the internationalization of higher education: An overview. *Frontiers of Education in China, 9*(2), 151–162.
Zhang, F. (2012). Recruitment and management of international students in Xinjiang from the perspectives of marketing. *Study of Foreign Students in China, 2*(86), 69–72.

Aisi Li is an Assistant Professor of Nazarbayev University Graduate School of Education. Aisi holds a Bachelor’s degree in Business Management from Sichuan University, China. She then studied M.Sc. in Comparative and International Education at the University of Oxford. She received her D.Phil. in Educational Studies from the University of Oxford in 2012. She specialises in internationalisation of higher education both from a historical and contemporary perspective. Her recent projects take a special interest in how China’s Belt and Road Initiative impacts higher education in China and Central Asia.

Chapter 4
Delivering Programs on Education for Sustainable Development (ESD) and UN Sustainable Development Goals (SDGs) in Mainland China and the Hong Kong Special Administrative Region: An Assessment of the Hong Kong Institute of Education for Sustainable Development

Stephanie W. Lee, Samson C. W. Ma, and Ngok Lee

Introduction—The Hong Kong Institute of Education for Sustainable Development (HIESD)

HIESD was established in Hong Kong as an NGO under the Company Ordinance in 2003. It has been closely associated with the Chinese National Commission for UNESCO (UNESCO China) and the Chinese Federation of UNESCO Associations and Clubs in terms of advice received and participation in nationwide activities. HIESD has been regarded in Mainland China as one of the regional centers of UNESCO China. Since inception, it has adhered to the objective of developing programs and activities in education for sustainable development (ESD). In so doing, it extends ESD to encompass five key components, all of which serve the purpose of infusing ESD into programs and activities. These five components relate to education, public administration, community services, public health and urban planning (HIESD, 2016). In 2010–15, HIESD was supported by UNESCO China to conduct

S. W. Lee (✉)
College of Professional and Continuing Education, The Hong Kong Polytechnic University, Hong Kong, China
e-mail: s.lee@cpce-polyu.edu.hk

S. C. W. Ma
Institute of Management Consultants Hong Kong, Hong Kong, China

N. Lee
UNESCO Hong Kong Association, Hong Kong, China

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_4

exchanges and continuing professional development programs for teachers in Mainland China. These programs focused on ESD, cultural heritage, and peace and global citizenship. Partnerships with tertiary institutions and NGOs targeted learners from schools, tertiary institutions, and the community. When the Hong Kong UNESCO Association was established in 2010, HIESD became its close partner and to some extent provided it with administrative services. From 2015, HIESD has widened its scope to work in step with UN initiatives endorsed by the Chinese government and has started to design and develop programs which relate to the UN 2030 agenda. It should be noted that HIESD received no financial support from the Hong Kong SAR Government. It has instituted an efficient IT platform which facilitates the dissemination of program information and student enrollment. It can be said that HIESD has entered the second phase of development as an institution.

This chapter aims to conduct a qualitative review of HIESD and assess its programs with a view to establishing the relevancy level of HIESD programs to the Thirteenth Five-Year Plan, the Decade of Education for Sustainable Development (DESD), ESD, and the UN Sustainable Development Goals (SDGs).

Achieving Education for Sustainable Development and UN Sustainable Development Goals

The United Nations and UNESCO have taken great pains to design a global roadmap for sustainable development to meet challenges in the twenty-first century. UNESCO set objectives to foster the Decade of Education for Sustainable Development (DESD) for 2005–14. In 2015, the UN promulgated a landmark resolution that led to the confirmation of 17 Sustainable Development Goals (SDGs). These goals have been considered to be progression on the UN Millennium Development Goals (MDGs). Since the launching of SDGs, countries have taken them to heart and have started to design and develop sustainable development projects in accordance with targets and indicators set by the UN. Developing and developed countries have their own orientations in implementing the goals. President Xi Jinping announced China's support for SDGs during his speech at the UN General Assembly on April 21, 2016. To demonstrate China's resolve, he confirmed the significance of SDGs in the country's implementation of the Thirteenth Five-Year Plan (Xi, 2016). It is in this context that this chapter undertakes investigations into the development of the Hong Kong Institute of Education for Sustainable Development (HIESD) and programs it has been offering or plans to offer in the near future. These programs are designed mainly for university-level learners, schools, enterprises, professional organizations, and the community. Learners are from Mainland China and the Hong Kong Special Administrative Region. In designing programs, HIESD aims to achieve some of the goals of DESD and the objectives of MDGs and SDGs. Objectives of SDGs constitute the latest guide for programs that have either been recently launched or are being designed. It stands to reason that the capacity of HIESD limits the scope and intensity of program design and implementation.

In 2005–14, HIESD programs were guided by the objectives of DESD and MDGs. In particular, education for sustainable development (ESD) constitutes the backbone of experiential learning and other learning experience (OLE) programs for schools and the community. The number of hours undertaken by students involved in HIESD activities is accepted to qualify for OLE requirements in the New Senior Secondary Curriculum. In Mainland China, HIESD offers teacher training and ESD programs for regional centers of UNESCO China. These programs follow closely the five objectives of DESD. They are (1) promoting and improving quality education, (2) reorienting educational programs, (3) building public understanding and awareness, and (4) providing practical training (UN, 2015). They are also built on the vision that takes into account the creation of public awareness and wide coverage by the media. Challenges in the implementation of ESD include the need to go beyond environmental education to establishing partnerships and creating synergies. Indeed, HIESD's experience in developing ESD learning programs reveals that environmental education tends to be the major component when schools compose reports, and when students do assignments and fieldwork. Nevertheless, HIESD does its best to guide schools and students to understand the importance of maintaining a balance of the three key components of the environment, society, and economy. For the design and development of the curriculum, it is especially important for schools to integrate the three components in a balanced manner. A good practice model that HIESD follows comes from the UK. The UK'S Quality Assurance Agency for higher education, which monitors standards and quality in UK higher education, provides a graduate outcomes framework for the assessment of learning outcomes of students. The framework requires teachers to establish links between global citizenship, environmental stewardship, social justice, and ethics and well-being, all of which are derived from the three components of environment, society, and economy (UK National Commission to UNESCO, 2013). Another study on the relationship between education and sustainable development argued that there were two complementary approaches, namely, ESD1 and ESD2. ESD1 promoted skilled behaviors and ways of thinking that were useful in the short term. ESD2 promoted the building of capacity for students to undergo a critical thinking process and explore the dilemmas and contradictions in sustainable living (Vare & Scott, 2007). Critical thinking is an intellectually disciplined process of activity which skillfully conceptualizes, applies, analyzes, synthesizes, or evaluates information gathered from, or generated by, observation, experience, reflection, and reasoning.

In addition to DESD, the promulgation of the MDGs by the UN provided a guide to HIESD in its development. The eight MDGs range from eradicating poverty, to stopping diseases such as HIV/AIDs, and to providing primary education for all (UNDP, 2015). MDGs also contributed to promoting global awareness, political accountability, improved metrics, social feedback, and public pressures. Bill Gates hailed MDGs as a type of global report card (Sachs, 2012). MDG 7 on ensuring environmental sustainability is of particular relevance to Mainland China and Hong Kong. In Mainland China, development of environmental education has been under the supervision of the Ministry of Environmental Protection Policy. The Center for Environmental Education and Communications under the Ministry spelled out the aims of environmental education, which included disseminating scientific knowledge, raising public awareness, advocating environmentally friendly behaviors, and encouraging and supporting public participation. It is responsible for planning, providing training, and fostering international exchange at the national level (China Environmental Education Center, 2016). One of the major projects of the center is the China Business, Environment, Learning, and Leadership (BELL) project, which aims to integrate components of environmental education in MBA courses for the benefit of future fund managers. In 2015, the project sponsored forums with a view to nurturing talents in innovative leadership, fostering start-up businesses in sustainable development, and promoting responsible environmental development (Center for Environmental Education & Communications, 2015).

In Australia and Denmark, a study on integrating ESD in two engineering institutions developed a conceptual framework that provided an overview of educational activities and resources, and case studies. From their work, the authors claimed that the conceptual framework and case studies provided a platform for change in ESD development. The aim of the two institutions on green engineering spearheaded activities in support of green institutions (Holgaard et al., 2016). Similarly, some headway has been made in encouraging schools to gain green school status at the system level in Hong Kong. An HIESD project launched in 2006 in the form of granting schools Experimental and Exemplary School status attracted schools to take part in ESD development. HIESD was authorized by the UNESCO China National Commission to grant Experimental/Exemplary School status to successful applicants. One of the major criteria was the ensuring of environmental sustainability, although the other two components on society and economy were relevant.

The UN's recommendation to adopt a set of Sustainable Development Goals (SDGs) originated in 2012 in a report that detailed post-2015 goals. SDGs at their planning stage were considered to be helpful in "moving the world to a sustainable trajectory" (Sachs, 2012). On September 10, 2014, the UN General Assembly adopted a resolution that paved the way for the incorporation of SDGs into the post-2015 development agenda. Sam Kutesa, the UN president, declared that the theme in 2014 was "Delivering on and implementing a Transformative Post-2015 Development Agenda." The resolution officially launched the SDGs for countries to implement sustainable development with renewed rigor (UN Water, 2014). The UN therefore set the 2030 agenda for sustainable development as an action plan for people, the planet, and prosperity.

In June 2015, UNESCO's annual meeting of National Commissions held in Shanghai confirmed the importance of SDGs, and the need for a significant shift in mindset for National Commissions to implement future plans of action (WFPA, 2016). United Nations Development Programme (UNDP) considered that SGDs "go much further than the MGDs, addressing the root causes of poverty and the universal need for development that works for all people". Broadly speaking, the 17 goals aim to end poverty, fight inequality and injustice, and tackle climate change by 2030. The 17 goals, in short, focus on: no poverty; zero hunger; good health and well-being;

quality education; gender equality; clean water and sanitation; affordable and clean energy; decent work and economic growth; industry, innovation, and infrastructure; reduced inequalities; sustainable cities and communities; responsible consumption and production; climate action; life below water; life on land; peace, justice, and strong institutions; and partnerships for the goals. In total, 169 targets are set for achieving the goals, with indicators specified for each goal.

In January 2016, the Committee on Teaching About the United Nations (CTAUN) in the USA held its 17th Conference at the UN Headquarters. Panelists spoke on education, food and nutrition, poverty, gender, and politics of water and climate change. Ambassador Macharia Kamau, Permanent Representative of the Kenya Mission to the UN, made the point that "because of the disparity in resources and capacity between developing and developed countries, there was a need to make the goals aspirational, rather than mandatory" (CTAUN, 2016). In Goal 4: "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all," seven indicators are suggested, of which UNESCO is responsible for monitoring six. In terms of the level of education, the seventh indicator denotes "tertiary enrollment rates for women and men." Eleven indicators are also provided as complementary national indicators (UN, 2016).

Two programs illustrating good practices were including in the CTAUN conference discussions on education. The first was a five-day Global Challenge program to develop students' critical and creative thinking. Students were motivated and empowered as they took charge of their own learning. The second example aimed to foster professional development for teachers in implementing virtual global exchanges. This claimed that 50,000 teachers and two million students were engaged daily in online and collaborative learning (CTAUN, 2016). In Goal 3: "ensure healthy lives and promote well-being for all at all ages," two indicators are on the "probability of dying between exact ages 30 and 70" and "proportion of persons with a severe mental disorder who are using services." Mental Health Innovation Network (2015) reported that FundaMentalSDG strongly supported these two indicators because of the high prevalence of mental ill health (one in four people experience mental illness, which is regarded as a global emergency; while the growing burden of these illnesses reduces lifespan by up to 20 years). The Common Ground program, a cross-industry initiative, supported the SDG reports. In June 2016, planning began to schedule groups of corporations to collaborate in tackling issues concerning the SDGs from 2017. The Interpublic Group (IPG, 2016) would focus on Goal 6 on clean water and sanitation. In addressing the Common Ground program meeting, Secretary General Ban Ki-moon pointed to the 17th Goal on partnerships to urge competing and cross-sector companies to follow the example of Common Ground to collaborate (Interpublic Group, 2016). In his address to the 2016 UN Global Compact Leaders' Summit at UN headquarters, he called for a "holistic development model that will take climate impact and fragile ecosystems into account, and would benefit both people and the planet." He said that the Paris Agreement on Climate Change and SDGs in 2015 provided the private sector with opportunities to create clean energy, climate-resilient, and sustainable economies.

In response to President Xi Jinping's speech made to the UN General Assembly, the Fourth Plenary Session of the Chinese National People's Congress approved in March 2016 the "Outline Plan of the Thirteenth Five-Year Plan" with a view to achieving the integration of the 2030 agenda for Sustainable Development into China's middle and long-term development plans (Ministry of Foreign Affairs of the People's Republic of China, 2019). President Xi pledged to mobilize all forces to create the appropriate environment and meet the standards set by SDGs. These pledges include strengthening the coordination of cross-sector policies, introducing improvements to relevant regulations and legislations, and ensuring the efficiency of 43 relevant government departments. The president cited an example of a specific target to enable 55.75 million people in rural areas to live above the poverty line within five years. As regards the development of HIESD, it has likewise broadened its scope and perspectives in order to embrace the SDGs. It has started to design and develop programs that could emulate some of the targets relating to some of the goals, taking into account constraints and capacity in Hong Kong and Mainland China. In 2015–16, programs launched or being designed relate to quality education, mental health, industry and innovation, and peace.

Qualitative Review of HIESD and Its Programs

Since its establishment in 2003, HIESD has focused its work on fostering education for Sustainable Development and targets schools in Hong Kong and branches of UNESCO China at the provincial level. In the past five years, HIESD has increased its program offerings to include programs in partnership with overseas professional bodies. The authors of this chapter, who have varying degrees of relationship with UNESCO Hong Kong, have taken on the task to review HIESD and its programs as they are of the view that the promulgation of UN Agenda 2030 and its 17 SDGs has provided incentives for HIESD to scale new heights.

The aims of the study are (1) conduct a qualitative review of the HIESD and its programs; and (2) establish the relevancy level of HIESD programs to the Thirteenth Five-Year Plan, Decade of Education for Sustainable Development (DESD), and UN Sustainable Development Goals (SDGs).

Data Collection

Qualitative data collected for the institutional and program reviews comprised documents, reports, curricula and websites, and records of 55 interviews with Mainland and Hong Kong stakeholders and partners, HIESD senior management, and Mainland officials.

Qualitative data collected for the program review and for the relevancy of HIESD programs to the three development plans from China, UNESCO and the UN comprise

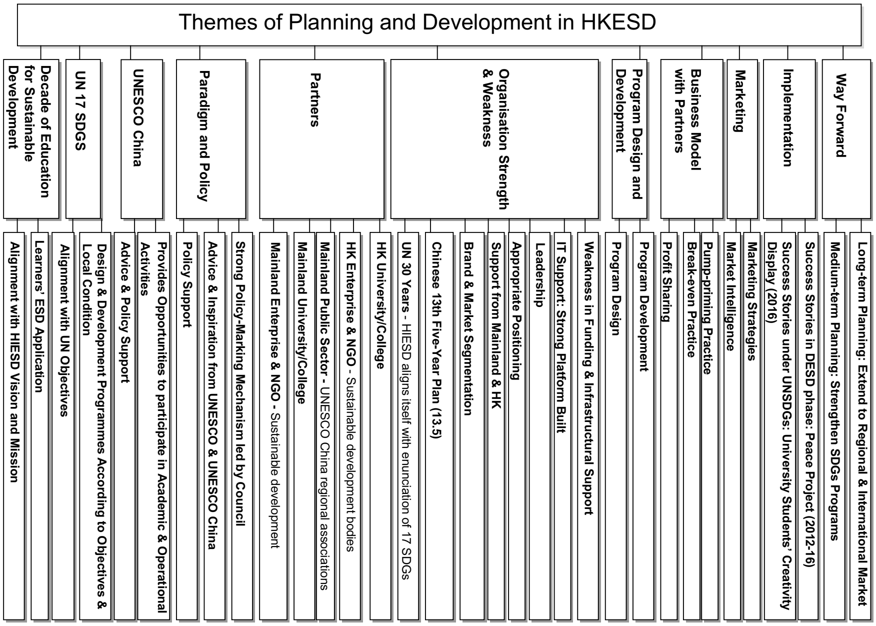


Fig. 4.1 Analytical framework

mainly (1) content of individual programs, and (2) reports relating to China's Thirteenth Five-Year Plan, Decade of Education for Sustainable Development and the UN Sustainable Development Goals. Under (1), the content of six programs was collected. Under (2), the goals in the three development reports were identified.

Data Analysis

In the Institutional Review (Fig. 4.1), a qualitative method was used. Relevant information collected was organized into meaningful text units. Content analysis took place when text units that have similar meanings were grouped into categories. An analytical framework was organized on the basis of the results derived from the content analysis.

Institutional Review Findings

The 11 themes in the Analytical Framework serve two purposes, namely conducting an institutional review of HIESD and reviewing the institution's programs. On institutional review, all 11 themes are relevant although they vary in levels of relevancy and influence. Of direct relevance is the first group of four themes on Organizational Strength and Weakness; Paradigm and Policy; Partners; and Way Forward, in descending order of importance. A second group of themes is external to the institution but is able to inspire and advise on development. They involve UNESCO China, the UN SDGs and DESD in descending order of importance. The third group comprises the single theme on program design and development and represents the institution's product line. The fourth group of themes, on business model with partners, marketing and implementation, in descending order of importance, represents the institution's execution processes.

In the first group of themes, HIESD's strategy to target different sectors seems to have maintained a steady course in terms of program development. Its strength has been built on programs related to the school sector and teacher training. Following China's support of the 2030 agenda for Sustainable Development and President Xi's intention to implement the SDGs in China's Thirteenth Five-Year Plan, HIESD has reinvigorated its efforts to develop programs targeting universities, enterprises, professional bodies, and the public sector. Worth mentioning is its ability to construct a powerful IT platform for marketing and administration. The major weakness of the institution is that it operates on a self-financing basis. Budgeting is a perennial issue as it relies on financial support and sponsorship. Annual income projections are difficult to make. Policy for institutional development comes in the form of advice and inspiration from UNESCO and UNESCO China, and from international organizations like the UN. Policy support is evident in HIESD's participation in seminars, international conferences and exchanges under UNESCO China's auspices. Partnerships between Mainland and Hong Kong organizations benefit the institution in two ways. First, they provide sponsorship either in kind or in financial support. Second, they lighten the load in project design and development. It has to be said that opportunities for financial sponsorships are greater from Mainland partners, especially from those connected with government agencies.

In the second group of themes, UNESCO China plays the role of advising on governance, supporting program development, and facilitating networking with international organizations. UN SDGs set targets and indicators for program development, whereas DESD constitutes the fundamental direction for academic planning. The third group comprising the single theme on program design and development provides revenue for the institution, the success of which often depends on funding, enrollment, and input from partners. The fourth group of themes relates to the operational process. Like any other self-financing institution, its business model has to be flexible and sustainable. Pump-priming stands out as the preferred model but requires sponsorship support from willing investors. The break-even model forms the basis of any self-financing activities. Market intelligence and strategy require an excellent database of contacts and networks. The recently constructed IT platform would contribute to improvements, whereas networking with Mainland organizations remains an area for development. As regards success stories under the Implementation theme, the Peace Project (2012–16) targeting the community and schools has been considered to be a great success by peers as well as the public. A major contributing factor to the success is strong support from the Hong Kong government agencies, charitable organizations, and the diplomatic corps.

Program Review

This program review aims to investigate the level of relevancy of individual programs to four criteria, which are category, ownership, structure, and quality assurance. Category relates to intended targets and focus of learning. Ownership refers to HIESD and partners. Structure refers to positioning. Quality assurance refers to methods of evaluation.

Tables 4.1, 4.2, 4.3 and 4.4 on program categories, ownership, structure, and quality assurance provide an overview of program design and development as well as changes that have taken place since 2011 in terms of market demand, academic level, quality, and sources of support. Table 4.1, on categories, reveals the following: (1) all programs are relevant to ESD and the recently introduced SDGs are responsible for the success of new programs in creativity, management accounting, and management consulting. This is because the programs have been designed on the basis of contents set in Goal 8 on Decent Work and Economic Growth and Goal 9 on Industry, Innovation, and Infrastructure; (2) five out of eight programs on Innovation are either recently developed or being designed in response to SDGs. These include "University Students' Creativity Study Display," two courses on management accounting and one on management consulting; and (3) in terms of education level, school-level courses account for five programs, whereas 10 university-level programs indicate a growing demand for higher-level courses. Nine programs on lifelong learning, eight on community, and six on enterprise reflect the need for community service, continuing professional education, and industrial support; (4) four programs on teacher training demonstrate special needs in the Mainland and Hong Kong for continuing professional development in the school sector; (5) three programs on research reflect HIESD's ability to seek high profile funded projects.

Table 4.2, on ownership, reveals the following: (1) the ability to seek university partners who help design programs and source students from their institutions; (2) five partners from enterprise reflect employees' need for continuing professional development; (5) five partners from professional bodies offer high-level professional training for those who need it, and three programs on management accounting and consulting will train Mainland practitioners; (6) out of the four programs which have government agencies as partners, two received funding support. The Smart Health School project has been funded by a Mainland education authority, whereas the Peace Project received financial support from a Hong Kong public agency.

Table 4.3, on Structure, reveals the following: (1) 10 out of 12 programs award certificates, five of which offer students opportunities to obtain an additional certificate from HIESD's partners; (2) six programs offer students opportunities to seek credit awards if they so wish, (3) five programs serve as feeders to higher level courses offered by either partners or other institutions; (4) in terms of the duration

Table 4.1 Overview of HIESD programs (category)

	A. Teacher training	B. Community	C. Tertiary	D. Enterprise	E. Lifelong learning	F. Schools	G. Innovation	H. ESD	I. DESD focus	J. UNSDGs focus	K. Research
Quality Education for UNESCO China Centers	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Peace and Sustainable Development	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	No
Innovative Teaching for Health Schools	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Smart Health Schools	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ESD Learning Program for Schools	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No
Lifelong Learning Project for Qualifications Framework Validation	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	No
US CMA	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes	No

(continued)

Table 4.1 (continued)

	A. Teacher training	B. Community	C. Tertiary	D. Enterprise	E. Lifelong learning	F. Schools	G. Innovation	H. ESD	I. DESD focus	J. UNSDGs focus	K. Research
Sustainable Development Planner	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Australian CMA	No	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	No
University Students' Creativity Display	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	No
Information Security and Sustainable Development	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Institute of Management Consultants (CMC)	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

Table 4.2 Overview of HIESD programs (ownership)

	A. HIESD initiative	B. Partnership (university/college)	C. Partnership (enterprise/NGO)	D. Professional body	E. Government agency	F. Schools
Quality Education for UNESCO China Centers	Yes	No	No	No	Yes	Yes
Peace and Sustainable Development	Yes	Yes	Yes	No	No	Yes
Innovative Teaching for Health Schools	Yes	Yes	No	No	No	Yes
Smart Health Schools	Yes	Yes	No	No	Yes	Yes
Lifelong Learning Project for Qualifications Framework Validation	Yes	Yes	No	No	Yes	No
US CMA	Yes	Yes	No	Yes	No	No
Sustainable Development Planner	Yes	Yes	Yes	Yes	Yes	No
Australian CMA	Yes	Yes	Yes	Yes	No	No
University Students' Creativity Display	Yes	Yes	No	No	No	No
Information Security and Sustainable Development	Yes	No	Yes	Yes	No	No
Institute of Management Consultants (CMC)	Yes	Yes	Yes	Yes	No	No

Table 4.3 Overview of HIESD programs (structure)

	Single certificate	Twin certificate	Credit bearing	Feeder to higher/ professional award	Short (up to 50 h)	Long (160 h up)	Face to face	On-line
Quality Education for UNESCO China Centers	Yes	No	No	No	Yes	No	Yes	No
Peace and Sustainable Development	No	No	No	No	Yes	No	Yes	No
Innovative Teaching for Health Schools	Yes	No	No	No	Yes	No	Yes	No
Smart Health Schools	No	No	No	No	No	Yes	Yes	No
ESD Learning Program for Schools	Yes	No	No	No	No	Yes	Yes	No
Lifelong Learning Project for Qualifications Framework Validation	Yes	No	Yes	Yes	No	Yes	Yes	Yes
US CMA	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Sustainable Development Planner	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Australian CMA	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
University Students' Creativity Display	Yes	No	No	No	Yes	No	Yes	No
Information Security and Sustainable Development	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Institute of Management Consultants (CMC)	Yes	Yes	Yes	Yes	No	Yes	Yes	No

Table 4.4 Overview of HIESD programs (QA & evaluation)

	A. Quality assurance (peer review)	B. Evaluation (experts)	C. Evaluation (students)	C. Evaluation (funding body)
Quality Education for UNESCO China Centers	Yes	Yes	Yes	Yes
Peace and Sustainable Development	Yes	Yes	No	Yes
Innovative Teaching for Health Schools	Yes	Yes	No	No
Smart Health Schools	Yes	Yes	No	Yes
ESD Learning Program for Schools	Yes	Yes	No	No
Lifelong Learning Project for Qualifications Framework Validation	Yes	Yes	No	Yes
US CMA	Yes	Yes	Yes	No
Sustainable Development Planner	Yes	Yes	No	No
Australian CMA	Yes	Yes	Yes	No
University Students' Creativity Display	Yes	Yes	Yes	No
Information Security and Sustainable Development	Yes	Yes	No	No
Institute of Management Consultants (CMC)	Yes	Yes	Yes	No

of programs, eight require at least 160 learning hours. Four short programs require up to 50 learning hours; (5) all programs are delivered in the face-to-face mode, and four offer students the option of choosing online learning.

Table 4.4 reveals the following: (1) all programs are peer-reviewed and evaluated by experts; (2) five out of 11 programs are evaluated by students; (3) four funded programs have been evaluated by the funding agency. In terms of categories of programs, two distinctive developments are that (a) four out of eight programs focusing on Innovation are recent developments, reflecting the ability to adapt to change brought about by the introduction of the UN SDGs, and (b) 10 out of 12 programs are at university level. In terms of ownership, 10 out of 12 programs have universities or colleges as their partners. Worthy of note is that out of four programs having government agencies as partners, two have been awarded funding from these agencies, suggesting that HIESD should actively seek funded projects from government agencies. As regards program structure, the way forward points to offering certificated programs that have a minimum of 160 contact hours, which have great potential to attract a large pool of learners from the business, education, and professional sectors.

Relevancy of HIESD Programs to Thirteenth Five-Year Plan (13.5), Decade of Education for Sustainable Development (DESD), and UN Sustainable Development Goals (SDGs)

See Table 4.5.

US Certified Management Accountants (CMA) and Australian Certified Management Accountants (CMA)

HIESD works in partnership with US Certified Management Accountants and Australian Certified Management Accounts as their programs relate closely to Goal 8 and Goal 9 of the SDGs. The level of relevancy of the two programs to 13.5 and SDGs is identical. This is due to their common aim to train professional management accountants. Both programs achieve (a) high relevancy level in three goals in 13.5 in respect of Opening Up to the World, Upgrading and Education, and (b) high relevancy level in two SDGs in respect of Quality Education and Economic Growth. High relevancy level achievement in (a) is due to the fact that they are offered worldwide and provide upgrading opportunities for management accountants. High relevancy level achievement in (b) is due to the fact that they are high-quality training programs fostering economic growth. The level of relevancy of the two programs to DESD is identical, given that both cater for management accountants. Both achieve high relevancy because the programs target professionals who are school leavers who have acquired work experience.

Certified Management Consultants (CMC)

The program is relevant to seven out of 20 goals in 13.5, four out of five goals in DESD, and five out of 17 goals in SDGs. Compared with USCMA and Australian

Table 4.5 HIESD program relevancy to 13.5, DESD and UN SDGs

Programmes	Evaluation		
	Programme relevance to 13.5 and rationale	Programme relevance to DESD and rationale	Programme relevance to UN 17 SDGs and rationale
Peace and Sustainable Development	Health (L), education (L)	Social capital growth (H), extending basic education (H)	Gender equality (M), reduce inequalities (H), communities (M), peace, justice, and strong institutions (H)
Smart Health Schools	Health (H), innovation (M), big data (H), education (H)	Social capital growth (M), extending basic education (H)	Good health and well-being (H), quality education (H)
ESD Learning Program for Schools	Economic growth (M), opening up to the world (L), green development and environment (H), driving innovation (M), education (H), a cleaner China (H)	Environment (H), social capital growth (M), economy (M), extending basic education (H), other learning experience incorporating ESD into curriculum (M)	Quality education (H), clean water and sanitation (H), affordable and clean energy (H), decent work and economic growth (M), communities (H), life below water (M), life on land (M), peace, justice and strong institutions (M)
USCMA	Economic growth (H), foreign investment (M), opening up to the world (M), domestic industrial upgrading (M), entrepreneurism and SOEs (M), education (H)	Social capital growth (L), economy (M), extending basic education (H), incorporating ESD into curriculum (M)	Quality education (M), decent work and economic growth (M)
Australian CMA	Economic growth (H), foreign investment (M), opening up to the world (M), domestic industrial upgrading (M), entrepreneurism and SOEs (M), education (H)	Social capital growth (L), economy (M), extending basic education (H), incorporating ESD into curriculum (L)	Quality education (M), decent work and economic growth (M)
Institute of Management Consultants (CMC)	Economic growth (M), foreign investment (M), opening up to the world (H), domestic industrial upgrading (H), innovation (H), education (H)	Social capital growth (L), economy (H), extending basic education (H), incorporating ESD into curriculum (H)	Quality education (M), decent work and economic growth (H)

Key (L) = Low; (M) = Middle; (H) = High

CMA, CMC achieves high relevancy level in four goals in 13.5, whereas the other two achieve high relevancy level in three goals. The fourth goal is Innovation Drive. CMC, USCMA, and Australian CMA all achieve two high relevancy levels in SDGs. CMC achieves three high relevancy levels in goals on Economy, Professional Education beyond School Age, and Incorporating ESD into Curriculum in DESD.

ESD Learning Program for Schools

The program is relevant to six out of 20 goals in 13.5, five out of seven goals in DESD, and eight out of 17 goals in SDGs. This is due to the fact that SDGs have been designed to enhance the DESD goals to meet the needs of the contemporary world in sustainable development. It also demonstrates that the design of the ESD Program reflects broad coverage of the three key components of environment, society, and economy. The program achieves (a) high relevancy level in three goals in 13.5, (b) high relevancy level in two goals in DESD, and (c) high relevancy level in four SDGs. Achievement in (a) is due to the influence of the Twelfth Five-Year Plan on the design of HIESD programs. Achievement in (b) and (c) is due to the emphasis on sustainable development and the focus of ESD program activities being on the environment. In (c), the high relevancy level in three SDGs is all on the environment.

Peace and Sustainable Development

The program is relevant to two out of 20 goals in 13.5, two out five goals in DESD, and four out of 17 goals in SDGs. It achieves no high or middle relevancy level goals in 13.5; two high relevancy level goals in Human and Social Capital Growth and Extending Basic Education in DESD; and two high relevancy levels in goals on Reduce Inequality and Peace, Justice and Strong Institutions in SDGs. Worthy of note is the program's deliverables which relate closely to peace, social capital growth, and lifelong learning.

Smart Health School

The program is relevant to four out of 20 goals in 13.5, two out of five goals in DESD, and two out of 17 goals in SDGs. It achieves three high relevancy levels in goals on health, big data technology, and education in 13.5, one high relevancy level in the goal on extension of basic education in DESD, and two high relevancy levels in goals on good health and well-being and quality education in SDGs. Worthy of note is the program's achievement in health and wellness and application of big data technology. This is because it is a research project on mental and physical health education in Chinese schools in Beijing (Lee et al., 2016).

Discussion and Conclusion

Institutional Enhancement and Partnership

In reviewing the Hong Kong Institute of Education for Sustainable Development (HIESD), this study finds that as a self-financing organization, it is exposed to risks that are common to all NGOs in Hong Kong. For sustainable development, the institution should conduct a review of its governance structure and establish well-defined decision-making mechanisms. Strengths in organizational capacity and in partnerships with different sectors in Hong Kong and the Mainland have provided the foundation for program design and development. The recently constructed IT platform that caters to organizational enhancements, program design and development, and marketing reflects a good beginning for HIESD's second phase of development. In this phase, it aims to align itself with the goals set by the Thirteenth Five-Year Plan and the UN Sustainable Goals. The former in particular provides a focus for its program and project development that targets the Mainland China market. Nevertheless, insufficient funding will continue to pose challenges that require meticulous planning. This is because education reforms in recent years have been hampered by inadequate funding. While rising standards of living have increased demand for quality education, a serious shortage of teachers has stood in the way of expanding education and introducing curriculum reforms (Savelyeva, 2022; Dello-Iacovo, 2009). Quality programs offered or to be offered by HIESD should be able to meet learners' needs, except that it is likely to take extensive time to achieve concrete results. Another means of enhancing institutional strength is to secure funded projects according to the needs of the community. These projects could be in partnership with other NGOs and target major charitable organizations such as the Hong Kong Jockey Club, major Mainland China foundations, and international corporations. There are indeed examples of universities in the USA that nurture social entrepreneurs whose main business is fostering corporate social responsibility and convincing corporations to make contributions to the society, including committing themselves to charity efforts based on the core competencies of the corporation (Tsai, 2013).

In terms of strengthening HIESD's link with UNESCO-related organizations in the region, there is a need to enhance its exposure by participation in international and Asia–Pacific forums that drive the UN agenda 2030, and by liaising closely with UNESCO's Asia–Pacific regional office in Bangkok. The latter has been actively promoting sustainable development projects according to the targets and indicators set by the UN SDGs (UNESCO—Bangkok Office, 2016). As regards senior management, who are all volunteers, one specific action to be taken is to recruit more volunteers to take up specific responsibilities such as drafting project proposals, seeking funding, and designing sustainable development programs according to market demand. One effective way of achieving this is that members of existing committees on education, culture, and healthcare management should be encouraged to contribute more of their time to achieve the common goal of sustainable development in education. Nevertheless, committee members who are all volunteers may not have as much time devoted to the cause as one would wish.

Generating Synergy in China

In terms of support from UNESCO-related organizations, UNESCO China stands out as the single most important organization that has helped generate synergy between HIESD and its partners in Mainland China. Under the leadership of its chairman Professor Tao Xiping, UNESCO China has connected the institution with relevant Mainland education agencies for the purpose of developing projects relating to health education and the three key components of sustainable development. HIESD is regarded as a regional center of UNESCO China. Professor Tao advised HIESD that all programs should be anchored on the UN 2030 agenda, and that program modifications should be made in order to achieve alignment with the SDGs. He also advised that programs should as far as possible articulate to the curriculum of leading universities in China (Tao, 2016). A program titled "Quality Education for UNESCO China Regional Centers" is an example of synergy generated as a result of support from UNESCO China. In the program, HIESD plays the role of facilitator in training teachers on the implementation of courses on sustainable development in schools. Projects of this nature would normally be associated with funding support. With the implementation of the Thirteenth Five-Year Plan, opportunities for HIESD to initiate programs with Mainland partners abound. To attract foreign investments, an open and inclusive environment is a pre-requisite. The Chinese government delineates ICT to be the highest priority sector of development in the Thirteenth Five-Year Plan. Projects to be launched include education modernization megaprojects on education informatization for schools, and distance learning and online education (Kennedy & Johnson, 2016). HIESD should seek opportunities in Mainland China to participate in projects relating to the informatization of school education.

Innovation and Change

UNESCO's enunciations of education for sustainable development have inspired HIESD program development in a significant way. The recent UN delineation of the 17 SDGs, their targets and indicators, as well as China's Thirteenth Five-Year Plan, have caused a paradigm shift in HIESD's program development. Such a shift is for the better as it may lead to more learning programs and sustainable development projects. Concrete examples of change are (a) the introduction of five new programs focusing on Goal 9 of the SDGs on "Build resilient infrastructure, promote sustainable industrialization and foster innovation," (b) the ability to partner with universities in 10 programs, and (c) the ability to offer eight certificated programs that require a minimum of 160 contact hours, most of which are recent developments. There is no doubt that targeting programs on innovation is the way forward. The UN itself conducts a study of innovation practice as specified in Goal 9 to explore the motivations of innovation in UN agencies. One of the key recommendations of the study is that the agencies should balance the dual innovation imperatives of organizational change and community support (Bloom & Faulkner, 2015).

Operational Model for Educational Provisioning

HIESD's programs have been able to provide courses to different sectors of the community in Hong Kong and the Mainland. These sectors range from schools and tertiary institutions, to NGOs and government agencies. Demand for continuing professional development, good academic-oriented courses, and lifelong learning represents a wide spectrum of needs that providers must satisfy. The UN's SDGs have provided new impetus to program development. In terms of program structure, award-bearing and credit accumulation courses continue to attract learners who aspire to seeking better qualifications. Online learning, as an addition to face-to-face delivery, will enhance students' learning experience. Recent partnerships with professional bodies have proven to be a success in providing prestigious courses for commerce and industry, whereas good outcomes in quality assurance will continue to attract funding. Tables 4.1, 4.2, 4.3 and 4.4 reveal the need for market segmentation within HIESD's business model. First, modularized and certificated programs of 160 h or above duration tend to widen the network of subscribers and bring in more revenue. Second, research-based projects and consultancies tend to attract funding. Third, programs which target the school sector and relate specifically to ESD should be developed, and not necessarily on a full cost-recovery basis. Murphy and Johnson (2009) studied institutions, curriculum, and society in China and claimed that changes in approach to educational development would cause changes in institutional arrangements and educational provisioning. These institutional arrangements included education financing, management, and teacher evaluation, all of which were central to quality education provision. Their study concluded that changes in China had affected how education was managed, funded, distributed, and designed. Prospects of positive program developments undertaken by HIESD therefore depend very much on how policy changes in China affect the institution's governance, financing, and the distribution of programs.

Continuing Professional Development and Infusion of Sustainability into the Humanities and Social Sciences

The study on HIESD programs' relevancy level to the Thirteenth Five-Year Plan, Decade of Education for Sustainable Development, and UN's 17 Sustainable Development Goals reveals the following: (1) US CMA, Australian CMA and CMC achieve high relevancy level in goals on quality education, economic growth, professional development, and international outlook; (2) ESD Learning Programs for Schools achieve high relevancy level in goals on environment and in the Thirteenth Five-Year Plan, DESD and SDGs; (3) Peace and Sustainable Development achieve high relevancy level in goals on peace, social capital growth and lifelong learning; (4) Smart Health School achieves high relevancy level in goals on health and well-being, quality education, and big data application.

In the future, HIESD should use the above six programs as a template for design and development. This is because achieving high relevancy levels, hence strong alignment with the Thirteenth Five-Year Plan and the SDGs, tends to satisfy market demand and increase learner subscription. The greater the number of high relevancy level goals in individual HIESD programs the more likely the program will meet the needs of learners from universities, professionals, and senior business executives. US CMA, Australian CMA, and CMC provide advancement opportunities in the form of continuing professional development to those who enroll while engaged in employment, full or part-time. CMC targets professionals and senior executives who wish to attain qualifications in management consulting. In this regard, the International Council of Management Consulting Institutes (ICMCI) steers CMC programs globally, fosters training of management consultants, and sets standards and processes in over 50 countries. One of the recent ICMCI initiatives in continuing professional development aims to make innovative suggestions to reduce poverty and starvation with a view to achieving the MDGs (Cowie & Ing, 2007).

As regards, ESD programs for schools, Peace and Sustainable Development and Smart Health School aim at infusing sustainability into their activities. ESD programs foster social and economic sustainability over and above the focus on environmental sustainability. The Peace and Sustainable Development project infuses sustainability into the promotion of peace, justice, and social harmony. This effort aligns with other international initiatives, such as "The University Colloquium: Sustainable Future and Composition I," run by Florida Gulf Coast University, which introduced students to the issues and challenges of sustainability while they were studying humanities courses (Otto & Wohlpart, 2009). By the same token, HIESD's Smart Health School Project embeds sustainability in its social science-oriented research project while investigating the physiological and mental condition of adolescents (Lee et al., 2016).

The results of our study confirm that HIESD has been able to change and adapt itself to the latest global development in education for sustainable development. It has positioned itself to be a robust provider of education in accordance with the vision and mission of UNESCO and the United Nations.

References

Bloom, L., & Faulkner, R. (2015). *Innovation spaces: Transforming humanitarian practice in the United Nations.* Oxford Department of International Development University of Oxford. Working Paper Series No. 17.

Center for Environmental Education and Communication. (2015). *Bell Project Forum on sustainable development*. Retrieved from http://www.chinaeol.net/news/view.asp?id=79812&cataid=15

China Environmental Education Center. (2016). *Main functions.* Retrieved from http://www.chinaeol.net/english/index.html

Cowie, W., & Ing, B. (2007). *Improving outcomes from development funding by using indigenous management consultants.* International Council of Management Consulting Institutes. Retrieved from http://www.icmci.org/download/?id=17664858

CTAUN. (2016). Stewardship for a sustainable world: Education in the Sustainable Development Goals (SDGs). In *17th Annual CTAUN Conference at UN Headquarters.* Retrieved from http://www.ctaun.org/conferences/2016-un/

Dello-Iacovo, B. (2009). Curriculum reform and 'quality education' in China: An overview. *International Journal of Educational Development, 29*, 241–249.

HIESD. (2016). *Introduction.* Retrieved from http://hiesd.org/index_topic.php?did=241440&didpath=/150387/241440

Holgaard, J. E., Hadgraft, R., Kolmos, A., & Guerra, A. (2016). Strategies for education for sustainable development—Danish and Australian perspectives. *Journal of Cleaner Production, 112*, 3479–3491.

Interpublic Group. (2016). Weber Shandwick Supports UN Sustainable Development Goals. *Sustainability.* Retrieved from http://www.interpublic.com/about/stronger/strongerpost?id=6961

Kennedy, S., & Johnson, C. K. (2016). *Perfecting China, Inc. The 13th five-year plan.* Center For Strategic & International Studies.

Lee, S. W., Cheng, T. K., & Ma, S. (2016). An evaluation of adolescent mental health in a secondary school in Beijing. *Public Administration and Policy, 19*(11), 23–36.

Mental Health Innovation Network. (2015). *FundaMentalSDG.* Retrieved from http://mhinnovation.net/organisations/fundamentalsdg?mode=default

Ministry of Foreign Affairs of the People's Republic of China. (2019). *China's progress report on implementation of the 2030 agenda for sustainable development*. Retrieved August 30, 2020, from https://www.fmprc.gov.cn/mfa_eng/topics_665678/2030kcxfzyc/P020190924780823323749.pdf

Murphy, R., & Johnson, D. (2009). Education and development in China—Institutions, curriculum and society. *International Journal of Educational Development, 29*, 447–453.

Otto, E., & Wohlpart, A. J. (2009). Creating a culture of sustainability: Infusing sustainability into the humanities. *Journal of Education for Sustainable Development, 3*, 231.

Sachs, J. D. (2012). From millennium development goals to Sustainable Development Goals. *The Lancet, 379*, 2206. Retrieved from www.thelancet.com

Savelyeva, T. (2022). Liberal Studies reform and sustainability consciousness in Hong Kong tertiary education. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 109–125). Springer. http://doi.org/10.1007/978-981-19-5104-6_7.

Tao, X. (2016). *Advice to HIESD.* UNESCO China Office.

Tsai, J. (2013). Strategies for implementing education for sustainable development in business schools. *The Journal of Human Resource and Adult Learning, 9*(2), 172–183.

UK National Commission for UNESCO. (2013). Education for sustainable development (ESD) in the UK—current status, best practice and opportunities for the future. *Policy Brief, 9*. Retrieved from http://www.unesco.org.uk/wp-content/uploads/2015/03/Brief-9-ESD-March-2013.pdf

UN. (2015). Transforming our world: the 2030 agenda for sustainable development. Retrieved from http://sustainabledevelopment.un.org/post2015/transformingourworld

UN. (2016). *Sustainable development solutions network*. Retrieved from http://unsdsn.org/resources/publications/indicators/

UNDP. (2015). *Ensuring Environmental Sustainability, Sustainable Development Goals*. Retrieved from http://www.undp.org/content/undp/en/home/sdgoverview/mdg_goals/mdg7/

UNESCO—Bangkok Office. (2016). *Spotlight on global goals at Bangkok Prep's International Day*. Retrieved from http://www.unescobkk.org/news/article/spotlight-on-global-goals-at-bangkok-preps-international-day/

UN Water. (2014). *UN General Assembly adopts resolution on SDGs report*. Retrieved from http://www.unwater.org/news-events/news-details/en/c/250166/

Vare, P., & Scott, W. (2007). Learning for a change: Exploring the relationship between education and sustainable development. *Journal of Education for Sustainable Development, 1*(2), 191–198.

WFPA. (2016). National Commissions of the world to benefit from "The Elan of Shanghai". Retrieved from http://www.worldfpa.org/?p=9694

Xi, J. (2016). *UN General Assembly Speech*. Retrieved from http://www.voltairenet.org/article188880.html

Stephanie W. Lee is Associate Head of the Division of Social Sciences, Humanities and Design at College of Professional and Continuing Education, The Hong Kong Polytechnic University. She is an experienced researcher in health psychology, epidemiology, and sustainability with publications in peer-reviewed journals and books. Her teaching interests include mental health and well-being, psychology of learning and teaching, personality development and consumer behaviour. Dr. Lee has worked at the Department of Health of the Australian Government as well as tertiary institutions in Hong Kong. She enjoys taking advisory roles at government departments and statutory bodies. She also serves as the Associate Vice President of UNESCO Hong Kong Association and the Director of various NGOs and charitable organisations.

Samson C. W. Ma is Associate Partner of Ovum Ltd. UK, Consulting Service, Asia Pacific region, Academic Fellow of the International Council of Management Consulting Institutes (ICMCI), Honorary Secretary of the Institute of Management Consultants Hong Kong (IMCHK), Speaker of training programs of SPACE, HKMA and Sunderland University in the Hong Kong SAR. Dr. Ma is the professional and international certified consultant in areas of telecom, IT, Business and Management. Since 2008, he participated and delivered more than 50 global consulting projects to governments, telecom operators, business corporations and NGOs in the Asia Pacific areas. Dr. Ma is also a researcher of ICT strategies, solutions and applications on socio-economic development. His research interests includes e-commerce, e-logistics, e-healthcare as well as ICT enabled industries.

Ngok Lee was Vice President (Education) of the Hong Kong UNESCO Association and Honorary Professor in The University of Hong Kong. Over the last half-century, he had published widely on education, International History and Strategic Studies. He used to be Dean of Arts and Director of HKUSPACE in The University of Hong Kong, Executive Director of the Hong Kong Vocational Training Council, Pro Vice-Chancellor (Development) in the University of Southern Queensland.

Part II
Transformations

Chapter 5
Laozi for Higher Education on Sustainability: Its Principles, Logic, and Holistic Relevance

Orlando Nang Kwok Ho

Introduction

This chapter seeks to demonstrate the possibility, relevance, and desirability of employing a classical Chinese philosophical text named *Laozi, or Dao De Jing*, to teach tertiary learners on topics related to sustainability. Laozi was a Chinese thinker who lived in the sixth century before Christ. He is believed to have been more senior to Confucius in age—Confucius was reported to have visited him to seek philosophical advice. His central philosophical concern is that nature should be respected. The blind quests for kaleidoscopic innovations—when and where they are not indispensable, but mere social artificialities (Hansen, 1992, p. 214)—can only lead to loss of transcendental freedoms. To casual observers, Laozi might thus appear guilty of suggesting "anti-rational mysticism" (Hansen, 1992, p. 26), at least initially.

In this chapter, we will refer to his philosophical text as *The Book of Logo and Virtues*; for that is the exactly the Chinese meaning of *Dao De Jing*, whereas "*Laozi*" (italicized) is naming the book after its author. A cautious remark however is in place. This "*Logo*" is *not* inserted here because of any borrowed notion from European Platonism. Rather, it is a central vision echoed throughout the entirety of *The Book*. It reflects the indigenous Daoist belief in the grand unifying and rational Principle of the Universe; and that Laozi teaches that one should seek an ontological dwelling within the Logo. Chapter 62 of *The Book*, for instance, is an explicit reverberation of this central idea (Yu, 2004, p. 199; Wu, 1994, p. 464; Laozi, 1992, p. 104), for the Logo is not a humanly invented "Way," nor a human artificiality; and it is not given or static. It is dynamic and unfolding and ever-sustaining everything that comes from it and remains in it. That is, it has always been there and it sustains every other natural

O. N. K. Ho (✉)
Chartered Institute of Linguists, London, UK
e-mail: romansinstitute@gmail.com

Australian Institute of Interpreters and Translators, Melbourne, Australia

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_5

and human endeavor. These notions are indigenous and endogenous to the system of Laozi.

The aim here is to show the inner logic of Laozi's teachings. This chapter is to demonstrate that they have clear logic, immediate relevance, and a holistic approach. Laozi is therefore a serious thinker deserving a read by any contemporary teacher (and learner) about sustainability. However, since this chapter is primarily interested in the validity and truth values of the teaching of Laozi, there is no need to be overly concerned about the exact dating about his life. It will proceed to present exemplary observations of *The Book*. That will help to convey the *Logoist* convictions and arguments about nature–human relations. That should reveal the timeless and inescapable logic in the philosophy of Laozi.

In a nutshell, overconsumption can harm and contaminate both humanity and nature. According to Laozi, never-ending economic growth is illogical; total planning, total governance, and strong leadership are also necessarily detrimental, both to humans and nature; and that "good life" is reached only—and can only be reached—when humans seek to live plainer lives in harmony with nature. Our overall argumentation is therefore that: There is indeed a cogent need to let the educated opinions of the future world learn about the Logoist views. This should perhaps begin in curriculums at tertiary institutes worldwide.

The Logoist Perspective and Its Distinction from "Daoism"

Two historical remarks will ensure one shall evaluate and appreciate the significances of *The Book of Logo and Virtues* in the right mind. First, I will use the term "*Logoist*" in the remaining sections of this chapter. This is because "Daoist" has been a vague umbrella concept. It could cover either religious Daoism (Fowler, 2005; Littlejohn, 2009) that is concerned with the pursuit for personal longevity and private immortality (Tao, 1988) or the private and personal philosophy advocated by another philosopher by the name of Zhuangzi. This chapter, however, is concerned with Daoist as a distinct and reasoned voice in public and governance policies. In Chinese literature, these strands of Daoism are not the same (Si, 1992). Moreover, historically speaking, the Daoist perspectives of Laozi have indeed been a real historical voice with mainstream influences and interests in public governance (Chen, 1996; Fu, 1982; Wang, 2008). Before the commencement of state examination based upon Confucianism in 140 BCE (Tang, 1978), adherents to this *Logoist* strand of Daoism have always been entrusted with the reins of the state in China. A distinct term in English is therefore necessary. It can reflect the distinction necessary for this chapter.

This public dimension about the distinctiveness of the *Logoist* perspective is indeed well-noted among sinologists (Si, 1992). Its significance has never died out even after Confucianism acquired dominance as the official ideology by way of the aforementioned state examinations. *The Book of Logo and Virtues*, for instance, was made a compulsory text for all royal princess of the Qing Empire (Shunzi, 2001). This was a rule set up by the first and founding emperor of the Qing Dynasty, whose reign-title was "*Shunzhi*"; and the meaning of this reign-title is "To provide governance in tune with the nature." The subtle message of Emperor *Shunzhi* was therefore that of the *Logoist*. That is, nature does not always bend to the dictates of human wants; and even as powerful as an emperor, there is no other way to behave than to co-work and adhere to the logic with which nature operates.

Secondly, if the convictions and arguments presented in *The Book* have been sound and valid when Laozi first put them forward amid the socioeconomic and technological upheavals of his times (Li, 1962), the progresses of modern material sciences and of the rapid expansion of the global market nowadays can only serve to deepen and magnify the impact of their logic. This is because human abilities to infringe upon nature have simply grown much greater ever since the onset of industrialization. Nothing in the original arguments of Laozi has been invalidated by such developments. While contemporary preconceptions about Daoism might have largely been vague and general, the sharp and distinguishing logic of the *Logoist* must not be ignored. It is indeed not at all unthinkable when future generations grow serious about the policy options offered in the *Logoist* paradigm about human–nature relations that the *Logoist* views could somehow become the "*virtuous*" public conducts of the leaders of tomorrow.

The Textual Version to Use

Like the study of many other significant classical historical treatises, the scholarship on *Laozi* has different opinions as to which textual version should be judged as the most authentic. As said, these erudite debates (Allan et al., 2000) do not impinge upon the general big picture that is projected by *Laozi*. In this study, we will settle on the mainstream version (Huang, 1992) recovered from a tomb of the Han Dynasty. The academic English translations by other scholars of *The Book of Logo and Virtues* will be used in the following discussion. Where absolutely necessary for purposes of clarification, such translations may be supplemented by my own words, set within square brackets.

The *Logoist* Perspective on Sustainability

Now one may proceed to highlight the major *Logoist* teachings contained in *The Book of Logo and Virtues*. *The Book* is composed of aphorisms in short paragraphs, and these affiliated paragraphs are further organized into 81 chapters. In the eight subsections that follow, the number in square brackets is the chapter number, whereas (a) and (b) after the chapter number will indicate, respectively, to the first and the second half of the chapter.

The categorizations below can be potential curriculum themes for individual sessions in a course on sustainability in the present higher education context. Their inclusion, regardless of whether the target learners have any prior knowledge about *Laozi* the philosopher or not, will enable the learners to rise above the mainstream view about life and developments.

The Supremacy of Nature

Laozi begins everything from his notion of *Logo*, the Way. Everything is seen and evaluated in context of its relation to *Logo* (Wu, 2012). Below is a sample of his characteristic approach. *The Book of Logo and Virtues* thus proclaims:

> The number one of the Way [i.e. the *Logo*] was born.
>
> A duad from this monad formed.
>
> The duad bred the myriad.
>
> Each holding *yang*
>
> And held by *yin*,
>
> Whose powers' balanced interaction
>
> Brings all ten thousand to fruition. (Laozi, 2001, p. 116) [42a]

That is, the *Logo* begets the first ever of everything. Nothing exists outside of *Logo*. Inside every first-ever phenomenon are two philosophically complementary and reciprocal principles, viz. *Yin* (i.e., positive-constructive principle) and *Yang* (i.e., the negating-deconstructing principle). These two forces interplay and procreate the third; and through the "third," which as specific and particularistic forms emergent within the spectrum resultant of the *balanced* interplays between *Yin* and *Yang*, a whole range of diversities is possible.

That means every phenomenon is a balanced interaction between *Yin* and *Yang*. *Logo* permeates nature; and the diversities in nature are the interplaying of *Yin* and *Yang*. It means human wills and powers do not operate independently from nature. Humanity owes its continual livelihood and existence to the cyclical interplays of the principles innate within nature. The budding of this intellectual and philosophical framework will be conducive to the repositioning of humanity.

The Limits of Human Knowledge

Kant once stated the differentiating feature of the modern scientific method is forcing nature to render an answer to any question posed by man (Zheng, 2011). Associated with this remark is the hegemony of the "mechanistic/atomistic [epistemic] paradigm" that has prevailed since the time of Galileo and Descartes (Clarke, 2000). The *Logoist* perspective, however, is different. It is oriented toward an epistemological humility. It cautions against over confidence in what one thinks certain, knowable, controllable, and desirable. Hence, *The Book* [25a] declares:

> Manifesting material in from unshaped,
>
> Born before heaven and earth themselves,
>
> Unseen, unheard, above, apart,
>
> Standing alone ever true to itself,
>
> Swinging in cycles that never fail,
>
> Mother of heaven and earth, it seems,
>
> But I know not how to give it names.
>
> Pressed, I shall dub it the moving Way,
>
> Or call it by name the all-supreme,
>
> All-supreme and passing-beyond,
>
> Passing-beyond and reaching-far,
>
> Reaching-far and reverting-back.
>
> Indeed the Way is all-supreme. (Laozi, 2001, p. 82)

And since the *Logo* is evidently supreme, it is only logical that humans must seek to live in tune with nature, despite the fact that humans have a unique position in the universe. Thus [25b] continues on, after observing that "Indeed the Way is all-supreme," as follows:

> And heaven too, and earth, and man –
>
> The four things in this world supreme,
>
> Among them one is man,
>
> Who is bound to follow the rule of earth,
>
> As earth must follow heaven's rule,
>
> And heaven the rule of the Way itself;
>
> And the moving Way is following
>
> The self-momentum of all becoming. (Laozi, 2001, p. 82)

Yet, it must be noted that the teaching point is not on classical knowledge *per se*. Instead, the teaching point is on evaluating what has been stated in the text of *Laozi*. "To tame nature, man has disturbed his ecology. There is a price tag for everything man destroys in nature" (Hsia, 1992). Learners must judge the validity of these observations about man–nature relationships on grounds of clearly stated reasons and logical argumentation. These observations should neither be affirmed nor dismissed merely on grounds of their antiquity. In a nutshell, while humans are explorers, human knowledge systems (i.e., sciences or *Wissenschaften*) are not flaw-proof. They are destined to be incapable of outwitting nature.

Overconfidence is a trap. To position humans as masters to nature is to be self-conceited. This is a human mistake, to which leaders should be alert about.

> To recognize ignorance comes first;
>
> Not to know to know this will cause harm:
>
> Harm that the wise are spared
>
> Because they recognize it.
>
> Only by recognizing the harm
>
> Can one be spared. (Laozi, 2001, p. 172) [71]

In summary, assisting learners to see how humans stand in epistemological relation with nature is important. This new epistemological awareness may, by giving the learners another mental framework, help them break through existent beliefs and attitudes derived from previous knowledge and experience (whether acquired purposely or not); in particular, those that have "been actively pursued by the learner in response to inspiration from others or to personal interests and desires" (Smyth, 1996). After all, the global temperature rise since industrialization is a fact, and industrialization is an outward form of this epistemic overconfidence.

Beware of Vanity and Focus on Simplicity

One common assumption since the Enlightenment is the belief about progress, which is to be generated and sustained through innovations and competitions (Lee, 2013). Yet, contemporary neoliberalism is not free of the contradictions between liberty and inequality. Marx has been a strong voice noting these inherent contradictions. Sustainability is not merely about carbon exhaustion. Inspected within a longer time frame, it is about societal and international stability. Laozi is well aware of this interconnectedness. Thus, war and peace, and the postwar human and environmental dislocation, are examined also in chapters [30] and [31] of *The Book*.

However, it has been a modern bias to enshrine "progress." It appears that every society and nation is drunk with its associated notions. Market values dominate contemporary cultural scenes, including schools, and governance discourses in recent centuries (Jia & Park, 2022). The perennial question for tertiary learners to rethink is thus: What is the more achievable and ideal society, given the diversities and fragility of humans? In this context, the *Logoist* perspective presents another voice, and another vision of humanity to offer. So, *Laozi* [3] says:

Not promoting those of superior character

Will save the common people from becoming contentious.

Not prizing property that is hard to come by

Will save them from becoming thieves.

Not making a show of what might be desired

Will save them from becoming disgruntled. (Laozi, 2003, p. 81)

This perspective might appear backward-looking. However, the sharp question beneath the lines is whether the unreserved and institutional competition in a neoliberal world is the only possible way to live. Moreover, is this way of life humane and desirable? Is "happiness" culturally so projected and constructed really achievable as *the* happiness for the majority? In short, this *Logoist* voice is a demanding and rightful voice. It indeed deserves to be heard and considered, at least in the setting of contemporary higher education.

Appreciate Diversity in Nature

If the above message about vanity and simplicity sounds alien, the implicit fact behind this is possibly that the higher education sector has been overly unitary in its perspective. The intellectual difference of the *Logoist* is not a reason for invalidating its rightfulness as a valid argument. Nowadays, human life itself has been materialized and instrumentalized. Humans have been conflated into consumption-hunger zombies. Educators should alert the frogs in the boiling pots. Packaged beauty and extrinsic values that are parceled in, sustained and projected by marketable commodities should not, in the education process, be left unscathed as the only standards of human values. Instead, learners should be helped to discover and appreciate values beyond the conformity sustained by the market, established interests, and power holders. This is because, as should be obvious, "value" and "market value" are *not* identical concepts (Jacquar, 2001).

Hence, in similar veins, *Laozi* teaches [2a]:

As soon as everyone in the world knows that the beautiful are beautiful,

There is already ugliness.

As soon as everyone knows the able,

There is ineptness.

Determinacy (*you*) and indeterminacy (*wu*) give rise to each other,

Difficult and easy complement each other,

Long and short set each other off,

High and low completer each other,

Refined notes and raw sounds harmonize (*he*) with each other,

And before and after lend sequence to each other –

This is really how it all works. (Laozi, 2003, p. 80)

In short, the cultivation of an awareness of this inherent plurality will be in congruence with the promotion of imaginations and freedoms, which is a prerequisite to the natural well-being of humanity. Youthful learners reaching this awareness in their tertiary education can (or may?), in the longer term, appreciate the intrinsic values of respecting diversities as well as nature. This should a blessing to societies, both the present and future ones.

Beware of Policy and Leader Qualities

It is a clear stand of the *Logoists* that enlightened minds should be very cautious of human assertions. Unilateral, aggressive, and self-centered approaches should be taken with great caution. Hence, as *Laozi* declares in [2b], a more ideal stratagem would be as follows:

It is for this reasons that sages keep to service that does not entail coercion (*wuwei*),

And disseminate teachings that go beyond what can be said.

In all that happens (*wanwu*),

The sages develop things but do not initiate them,

They act on behalf of things but do not lay any claim to them,

They see things through to fruition but do not take credit for them. (Laozi, 2003, p. 80)

In fact, *Laozi* [38] even states, “It is because the most excellent do not strive to excel”; and thus, in terms of vision and execution, “they are the highest efficacy” (Laozi, Dao De Jing: A Philosophical Translation, featuring the recently discovered bamboo texts, 2003, p. 135). That is, the ideal is for leaders to subsume their own wills and wants within a deep deference to nature (Wei, 1992). In other words, the *Logoists* believe the aggressiveness of the human hearts should be held in check. Ambitious projects, in short, cannot be achieved without sociopolitical, environmental, longitudinal, and opportunity costs.

Aims Regarding Lifestyle

It is evident that the *Logoist* perspective is unique. Its approach is both a holistic and coherent view—and hence, a curriculum (Carr, 2003)—about human–nature relations. "There is no sin greater than desire; there is no misfortune greater than not to know when one has enough" (Hsia, 1992). Sustainability is not about "saving the world." Nature is not to be sustained merely for the purposes assigned to it by humans. Philosophically, the *Logoist* perspective entails approaching many aspects of human attitudes and domains differently and holistically.

As such, even if tertiary learners do not unconditionally or fully accept the arguments of this perspective, helping them to become aware of the very existence of these views of the *Laozi* can provide the prerequisite necessary for teaching through value clarification (Kirschenbaum, 1977; Banks, 1990). In other words, if only for the purposes of value clarification (Moeller, 2006), it is sensible to argue for a wider inclusion of *Laozi* as a pedagogical topic in higher education. One fundamental view of the *Laozi* [12] is that on lifestyle:

> The five colors blind the eyes,
>
> The hard riding of the hunt addles both heart and mind,
>
> Property hard to come by subverts proper conduct,
>
> The five flavors destroy the palate,
>
> And the five notes impair the ear.
>
> It is for this reason that in the proper governing by the sages:
>
> They exert their efforts on behalf of the abdomen rather than the eye.
>
> Thus, eschewing one they take the other. (Laozi, 2003, p. 92)

From this perspective, the ideal governance policy is to refrain from deliberately creating demand for goods and services. In other words, economic activities, and "economic growths" artificially stimulated and sustained in various nicely packaged forms, should not be granted unconditional primacy over life. Consumptions, stimulated as well as over-consumptions included, should not be mistaken as the purpose of life.

> In short, Laozi insists on living life in the simplest possible way. This is however not asceticism *per se*. The real threat to humans is that in the unbridled pursuit of enjoyment and stimulated production we will lose touch with ourselves. "The five colors blind the eyes" and we do not see even our "selves," which should have been so readily immanent and obvious. "Property hard to come by subverts proper conduct": This should challenge our modern notions of what good life is. The real questions are: What really is life about? Is production and consumption life-depriving or life-enriching? And are we living in a way that subverts nature?

Aims Regarding Education

The Book of Logo and Virtues has also a distinctive stance regarding education, namely that it has intrinsic value. Since education is an influential determinant in how the future generations will perceive themselves, I would argue that "sustainability education" must also re-evaluate what "education" (Jickling, 2004) is about after all. Unfortunately, such intrinsic values are vanishing fast in contemporary education. For instance, both the Chinese notion of *xiūyǎng* and the German notion of *Bildung*—aiming at development from natural human potentiality and natural human actuality—have been displaced by subtle trends of making education measurable and extrinsic, i.e., "skill-based" or "practical skills for jobs" (Postman, 1995), etc.

Laozi [48a] is a clear statement which signposts the *Logoist* pedagogical perspective. That is, "In the pursuit of [worldly] learning one knows more every day; in the pursuit of the way [i.e., the *Logo*] one does less [artificialities] every day" (Laozi, Chinese Classics: Tao Te Ching, 1989, p. 69) Moreover, the learned sages in this *Logoist* paradigm [49a] should be those who "take the thoughts and feelings of the common people as their own" (Laozi, 2003, p. 153).

Thus, the *Logoists* as educators would seek to foster three awareness or virtues. This is exemplified in *Laozi* [67b], which declares:

> I really have three prized possessions that I cling to and treasure:
>
> The first of these is compassion,
>
> The second, frugality,
>
> And the third is my reluctance to try to become preeminent in the world. (Laozi, 2003, p. 183)

To what extent are these three virtues comparable to the three Christian cardinal virtues of faith, hope, and liberty? This is for sure a good starting point to bridge across two great cultural tradition of the world. One commonality between them is that based upon either set of these desirable educational virtues, education is not for ulterior ends. The "outcomes"—or better say the "fruition"—of education is not about skills or problem-solving. In addition, properly understood, education should not be turning humans into tools.

Again, this is food for thought. For insofar as humans are treated also entirely as means to be used, nature will be laid bare for unreserved human exploitation. That is, in our contemporary context, a "sustainability education" that does not question "what is education?" will not be sustainable in achieving its very purpose.

Social Aims

With reference to the above subsections, it should be clear that the bigger social aim in the *Logoist* ideal must be quite contrary to the capitalistic and materialistic vision of success and progress. Laozi's ideal social vision is the construction of meaningful communal units in which people could live in tune with nature, with the minimum of effort devoted to boastful and aggressive actions from human wills. This macro-ideal is found in the second last chapter of *The Book* [80]. It is somewhat reminiscent of the famous line of *The Communist Manifesto*, regarding "Workers of the World, Unite. You have nothing to lose but your chains!" *Laozi* [80] thus proclaims:

> You want a small state with a minimal population.
>
> Have ready to hand weaponry for sufficient number of military units
>
> Yet have no recourse to use them.
>
> Make sure that the common people take dying seriously
>
> So that they have no taste for venturing far from home.
>
> Though you have ships and chariots enough
>
> Have no reason to man them;
>
> Though you have armor and weapons enough
>
> Have no reason to parade them.
>
> Bring the common people back to keeping their records with knotted string,
>
> To relishing their food,
>
> To finding beauty in their garments,
>
> To enjoying their customs,
>
> And to finding security in their homes.
>
> Although your neighboring states are within eyesight
>
> And the sounds of their dogs and cocks are within earshot,
>
> Your people will grow old and die without having anything to do with them. (Laozi, 2003, pp. 201–202)

In short, as two philosopher-and-commentators Roger and Hall (Laozi, 2003, pp. 201–202) have further elaborated, "A life is lived most fully in the immediacy and concreteness of ordinary experience. We can only thrive by further articulating and extending ourselves within those constitutive relationships that locate us in a specific time and space. We must grow from here to there. Whatever the temptations to wealth and grandeur that lure us away from these relationships, such distractions from what we really serve only to diminish our opportunities for consummate experience. On the other hand, a fully responsive appreciation of the local redirects us back to unmediated feeling as the real site of efficacious knowing and living."

As a summary of this section, sustainability understood from the *Logoist* perspective is not a stand-alone issue. *The Book of Logo and Virtues* has presented a holistic and coherent approach to humanity and nature. Sustainability is not an extrinsic aim. It is the only viable and rational way of life. Related to it is the totality of how future generations should re-examine their self-understanding as well as restructure their daily orientation and life routines. On the other hand, the human endeavor to seclude, to conceptualize, or to set humans apart from the *Logo* will not be compatible with nature, for humanity is a part of nature; and hence, such attempts will not be beneficial to the well-being and the fulfillment of humans.

Pedagogical Reminders

Lest some readers mistake the purpose of this chapter as the promotion of an ancient philosopher, several pedagogical points need to be noted. Uncritical indoctrination contradicts the purpose of education in general and is incompatible with the development of a truly reasoning mind. Hence, the educational value of teaching Laozi in conjunction with contemporary concerns about sustainability advocated here is to prepare young learners for adulthood (Siegel, 1990). It should not be confused with uncritical thinking.

Another noteworthy point is that, as demonstrated above, the *Logoist* perspective does have great teachings of contemporary relevance. Pinpointing the sustainability thread running through the thoughts and teachings of *Laozi* will provide necessary vantage points for today's learners to connect the text to their lived experience (Ho, 2016). For only when learners have anchored themselves to another way of thinking may they begin to effectually reassess their original and accustomed patterns of thought. That is, the educational impact of Laozi could be more appreciably on the logicality and the validity of his thinking. The benefit of teaching tertiary learners about sustainability via the maxims of an ancient philosopher is that it creates the necessary intellectual distancing from the present and builds in learners the indispensable intellectual lens for self-inspection and value clarification. The immediate teaching outcomes can be squarely placed upon the learners' abilities to rethink their modern biases about human–nature relationships.

To sum up, the *Logoist* approach is truly that nature bestows benefits to humans, *not* the other way round. The *Logoist* notions about "sustainability" are not about humans protecting nature. This view contains a genuine alert against the blind pursuit of profit; and it teaches that wants and enjoyments should be controlled by modesty. To position sustainability education from such angles as "smart development" and "humans protecting nature" is comparable to teaching the bringing of candles to kindle the sun. This highlights, then, one last significant point to note about teaching *The Book* in a sustainability curriculum, namely: The only sure way to environmental wisdom is not to overdo, not even in the name of "progress."

Discussion: The Logicality of the *Logoist* Perspective

This *Logoist* perspective is then quite distinctively different from the mainstream views propelled by secularism and market-driven desires. A teaching of *The Book of Logo and Virtues* could thus be used consciously—and perhaps aggressively—to generate rational and cognitive dissonance (Cooper, 2007) on the part of the learners. Such dissonance should be worked at by philosophy and/or sustainability teachers. This is because it makes real sense to speak about subjective choice between options *only* when the learners have become aware of theoretical possibility about the existence, the defensibility, and the rationality of another worldview (and thus another "way of life"). In other words, mental dissonance is a necessary precondition for the value clarification which must take shape before deep or internalized learning. For this reason, *The Book of Logo and Virtues* gives all "engineers of the soul" a potent tool. Dissonances, however, are not mere differences per se. For the cognitive dissonances to be substantial, tertiary learners must first be confronted with the hardheaded logicality and validity running through the claims projected in the *Logoist* perspective. Next, they must be challenged to establish some personal "inner connection" to what lies beneath those dissonances and then to evaluate the *Logoist* perspective.

In a nutshell, tertiary learners should be helped to see "trendiness" and "truth" are two different concepts. Sometimes, these two concepts may incidentally overlap; but they may as well differ. Despite the *Logoist* perspective being somewhat alien to the mainstream culture (which is driven by the market and desires), the coolheaded and rational teachings of *Laozi* cannot and must not be lightly disregarded. The onus of counter-argument is thus on opponents to the *Logoist* point of view; for an annual 7% growth rate could in a large stroke mean doubling the demands on nature in terms both of natural resources and pollution loadings in ten years' time (Bartlett, 2007). However, countries in a world with an annual global population growth of less than 2% ever since the end of the Second World War (Worldmeters, 2016) have been consistently consuming and laboring to achieve annual GDP growth rates much higher than that. Even now, it is not unusual for politicians (as strong leaders) to put forward national plans for 3–8% growth.

In fact, at the root of the soundness of *The Book of Logo and Virtues* is also its coolheaded insistence of consequence, to be unfolded over time. *Laozi* does not have an eagerness to satisfy the "unlimited" and "immediate" wants of ahistorical and atomized individuals (Li, 2011) whom the modern market has narrated as autonomous "masters" or "consumers." This is because behind every human consumption is an encroachment upon nature. Causality takes time to play out, but the playing out is sure and inescapable destiny, (cf. chapters [25], [30] and [40] of *The Book*). It means that any ambitious or pioneering human schema or endeavor must not be evaluated with sole reference to the shortest thinkable timeframe.

This stance can be disregarded *only if* the law of causality can be taken to be mistaken. The capital and profit-driven consumer society revolves around immediate satisfaction of the limitless wants and desires of the atomized individuals. Humans are assumed to have autonomy from, or even lordship over, nature. Humanity is believed to have the necessary epistemic powers to impose its will upon nature. Vanity is boosted and artificially engineered, partly to stimulate competition, consumption, and perhaps also exploitation. Simplicity is forgotten. Even aesthetic judgments are becoming ever more uniform, shaped by the media which are sustained by commercial interests and materialistic worldviews.

Lifestyles have then become almost entirely secular and unspiritual. Education aims at skills and professionalism, while in the process both life and the universe are fragmentized and instrumentalized. Meanwhile, in social aims, short-term vision has also monopolized larger senses about peace with oneself, with others as well as with nature. In sum, life has thus largely been narrated as a struggle to satisfy various desires. What then is the point of this striving? Is life only for food and enjoyment? Should tertiary education not encourage the young minds to rethink the position of human civilization and themselves?

As well as this, the global population explosion has put even more demands upon nature, in terms of the needs for natural resources. Even at the minimal level of natural human wants, the absolute demand for resources is already tremendous. Yet, contemporary "progressive" conceptions about life and nature, as briefly summarized above, can only add to the disequilibrium. For instance, ambitiously engineered GDP growth rates, as mentioned earlier, which are set roughly between 4 and 7% growth in many countries, can only add to the destructive scale of working toward future and inevitable disasters.

It is little wonder that some top policymakers have already sounded the alarm of coming world anarchy (Kaplan, 2001). "Coercive" institutionalized consumption as well as over-financing (Morrien & Kipp, 2010) have become prevalent social phenomena. The logic of secular modernity seems to have left us sleepwalking ourselves into troubles that could have been avoidable. In this context, *The Book of Logo and Virtues* can be integrated into curriculums with real social implications for the future. Philosophy is not just for the cultivation of the mind in the older sense; Laozi now can indeed give the future generation the wake-up alarm. The central question is whether future leaders of the world, while they are still learners at tertiary institutions, may be given another cogent, heterogeneous, and historically grounded framework to rethink life and values.

Hong Kong as a Pedagogical Case

So there are great educational values in teaching the younger generation about the *Logoist* perspective on sustainability. However, this deserving enterprise has been left largely untried in many parts of the world. Since Hong Kong as an international city is an educational hub for East–West cultural exchange, its practice and experience of teaching Laozi are therefore worthy of an investigation. Interesting pedagogical lessons could possibly be drawn from Hong Kong about teaching the *Logoist* perspective to the younger generation. This is particularly so because Hong

Kong is a prosperous capitalistic and material city. To live in Hong Kong is to live among high-rise skyscrapers. "Man-made" is the impression about life here. To live in Hong Kong is to be surrounded by and pressed upon by artificiality of all kinds. Markets, material forces and wants (for instance, in the forms of never-ending sales and all penetrating advertisements) are everywhere. In other words, in terms of spirituality, Hong Kong is truly quite far removed from nature It is thus a society that could most benefit from a changed awareness about the *Logoist* perspective.

In Secondary Curricula

Secondary school teachers in Hong Kong are, on the whole, all university graduates. Interviews with practicing teachers from secondary schools would reveal what they have learnt about Laozi. That would inform us how well university education was in the coverage of Laozi about ten to twenty years ago, as well as what current secondary students are now learning about Laozi. For these purposes, I have interviewed thirteen secondary school teachers in Hong Kong in early 2016. They were all very dedicated teachers, each with between five and twenty years of teaching experience. They were asked three questions:

(1) What do you know about Laozi and his philosophy?
(2) What is/are the relationship(s) between his philosophy and "sustainability?"
(3) Do you introduce Laozi in the subject(s) that you are teaching?

The interviewed teachers were distributed among the following subject areas: Geography (2 teachers), Economics (1); Liberal Studies (2); Chinese History (3); Chinese language and culture (5).

Referring to Question One, all respondents reported they knew the name of Laozi and knew roughly who he was. Yet, only one Chinese History teacher responded vaguely that Laozi had some relation with "sustainability." He also continued to answer Question Three in that "the limited class hours and the pressure arising from public examinations" in contemporary Hong Kong had made it impossible for him to teach more or sufficiently about Laozi. The other two Chinese History teachers had no ideas why he was related to sustainability. One of them suggested Laozi should be taught by the teachers of Liberal Studies. As for the Liberal Studies teachers, they thought *Laozi*—if it was at all relevant to secondary school learners—should be more within the subject domain of Chinese language and culture. However, lifestyle, sustainability, and personal philosophy were all teaching topics in the curriculum document of Liberal Studies.

As for the teachers of Chinese language and culture, on the whole, it was remarked by the department head of this subject that about "half an hour" in conjunction with some literary aspects about "Daoism" could have been covered in the senior secondary school curriculum. That curriculum extends over three academic years. Nothing about Laozi was noted as particularly related to sustainability. And despite Economics being more concerned about demand, supply, and consumption, the teacher of Economics, too, had nothing to remark about Laozi and his subject expertise. Equally noteworthy was that the two Geography teachers were completely at a loss as to why and how Laozi could be related to their subject area, even though sustainability is truly a core issue in Geography.

These data from Hong Kong are therefore shedding light on the challenge ahead. (1) University education of the past has not differentiated the umbrella concept of Daoism sharply enough from the *Logoist* perspective. (2) Current secondary students are in need of a *Logoist* education when they enter university, for they do not receive anything like that in their secondary schooling. (3) In other words, if the young generation does not acquire a chance to learn of the *Logoist* perspective in their university years, they could well be future replicates of their present secondary teachers insofar as the lack of knowledge about this perspective and its relationship with "sustainability" are at issue.

In Tertiary Curricula in Hong Kong (and Elsewhere)

A thorough web search for course descriptions of tertiary courses offered in Hong Kong in the last decade has been revealing. Hong Kong has eight government-funded tertiary institutions. The web search hereby reported has been conducted systematically, covering each of them. The search has spanned the years from 2005 to 2015. The Chinese and English keywords used in the search include: "*Laozi*," "*Daojia/Logoist*," and "*Dao De Jing*" and variants of their transliterations. Below are the analyzed characteristics about how *Laozi* has been approached as a curriculum item in the reported web-search:

1. There were very few courses that deal only with *Laozi*.
2. *Laozi* was covered as one composite Chinese dimension in most of these individual courses.
3. The distinctive and public perspective of the *Logoist* is not heard. It was blended into Daoism in general.
4. These courses were typically scholastic (abstractive, historical, literary, or philological) in orientations. This feature was most readily noticeable before 2010.
5. These courses have had no direct practical linkages to contemporary social applications.

Nevertheless, in the last three years more courses at tertiary institutions have taken on a concept-based approach, in contrast to the traditional text-centered and philologist approaches. The implementation of the Hong Kong Diploma of Secondary Education (HKDSE) in 2012 as a milestone in the education reform of Hong Kong could be a significant cause for this change. In short, the tertiary education sector of Hong Kong is undergoing "de-elitization." The former Advanced Level Examination (for matriculation) was abolished. Conscious efforts are made to match higher education curriculums with the immediate abilities and expectations of the young learners. More tertiary courses that contain some elements about *Laozi* have added to the development of learners' thinking and writing skills as one of their educational outcomes. So, there were moves to make philosophies more directly accessible to the general learners' developmental needs. This is obviously an appropriate pedagogical move.

But there is still a mismatch between current curriculum designs and the original public policy dimensions of the *Logoist* perspective. Populaces in Japan, Taiwan, and on the Asian continent would generally have some impressions about him. Even in Australia, it would not be difficult to find Laozi covered in some of the Chinese civilization or Daoist courses. My Internet search about course descriptions has confirmed for the five academic years between 2011 and 2015 that The University of Queensland, University of Western Australia, University of New South Wales, and Australian National University have all offered some teachings about Laozi. However, the same phenomenon of Laozi's absence as a public thinker is persistently observable. That is, while some philosophical faculties worldwide are emphasizing thinking and writing skills as learning outcomes, these pedagogical concerns in themselves have done nothing to improve the long-existing and over-privatized "Daoist" approach. The Logoist perspective as a distinctive public voice is still under-represented in the curriculums at higher education institutions.

Worse still, if events are left to take their own "natural" course, the *Logoist* perspective on nature–human relationships could perhaps receive even less class coverage than before. This is because the limited contact hours have now to be shared between philosophical content and other newly arisen pedagogical outcomes, such as writing skills. In short, despite the fact some curriculums touching upon *Laozi* have been trying to take on more concept-based approach in the last few years, without squarely recognizing the macro- and public dimensions inherent in the *Logoist* perspective such pedagogical curriculum adjustments could still be quite insufficient to accommodate the serious and challenging voice of the *Logoist*.

The Way Forward in Higher Education

What we have seen is that there is a latent but under-developed knowledge about the philosophy of Laozi. This can be said to be true in Asia–Pacific region in general. The *Logoist* perspective must accorded its distinctive identity in future curriculums. As far as sustainability education is concerned, newer curriculums at tertiary institutions are also well-advised to make conscious efforts to include the philosophical perspective of the *Logoist*.

Moreover, in the context of sustainability education, the tertiary learners should be introduced to Laozi not merely because of erudite interests and departmentalized concerns. The educational purposes stretch beyond historical, sinologist, and literary interests. The *Logoist* perspective so taught is meant to strike at perennial issues of central concern about life and wisdoms. Its logic and reasoning are sharp, inescapable, and will confront directly the human pursuit of innovation and progress (Hisrich et al., 2013). As a result, learners must feel the need to think.

In addition, there is great transferability here. Higher education learners today will be teachers of tomorrow; and students nowadays will be full-grown citizens of the future. More importantly, the *Logoist* voice could be relevant to all learners, regardless of their geographical locations and inherited cultural traditions. While the educational experiences reported here for illustrative purpose above have largely been taken from Hong Kong, no one can actually confine Laozi to Hong Kong or Asia. If the distinctive *Logoist* perspective is to be relaunched in tertiary curriculums now, then in the future, there will be secondary school teachers who are more knowledgeable about Laozi. The world would have a second framework to conceptualize human–nature relations.

Conclusion

To conclude, the ancients were not necessarily shortsighted or dumb. This chapter has sought to demonstrate the possibility, relevance, and validity of employing an ancient Chinese classical philosophical text, *Laozi* (*The Book of Logo and Virtues*) to teach tertiary learners on topics related to sustainability. This classical work by Laozi could indeed contain wisdoms. We have, however, been able to cover only a few aspects of *Laozi*. The aim is to argue for a holistic and coherent approach to "sustainability education" based upon it.

Educational experiences and circumstances related to the teaching of Laozi as mentioned in this chapter have been largely based upon the recent conditions of education in Hong Kong. However, as Plato and other such philosophers are jewels in the Treasure House of Humanity, so is Laozi. Similarly, the experience of Hong Kong is a crystallization of sociocultural forces at work in society. The relevance of the *Logoist* perspective to Hong Kong's tertiary education sector would also be applicable elsewhere. To teach such wisdoms effectively at tertiary institutions worldwide would contribute to an alternative and more rational perspective about life and values.

In a nutshell, sustainability education need not be monopolized by the "rational scientific approach to the environment," in which: "Education is seen as an instrument for achieving for the scientists', or environmentalists', goals" (Gough, 2004). This could lead to a refreshed approach to human–nature as well as to human–human relationships. On the more pedagogical side of teaching *Laozi* (*The Book of Logo and Virtues*), we suggest to link it squarely with the issues of sustainability. We posit that the logic and the validity of the claims of *Laozi* must be honestly and critically examined within such a *Logoist* curriculum. Such curriculums should also be liberated from the misplaced views that have largely mistaken the *Logoist* perspective as a private and personal religion or philosophy. And the buck must now start with higher education.

References

Allan, S., Williams, C., et al. (2000). *The Guodian Laozi: Proceedings of the International Conference, Dartmouth College*, May 1998. The Society for the Study of Early China.

Banks, A. J. (1990). *Teaching strategies for the social studies: Inquiry, valuing, and decision-making*. Longman.

Bartlett, A. A. (2007, June 16). *Arithmetic, population, and energy*. University of Colorado at Boulder. https://www.youtube.com/watch?v=F-QA2rkpBSY

Carr, D. (2003). *Making sense of education: An introduction to the philosophy and theory of education and teaching*. RoutledgeFalmer.

Chen, G. (1996). *Yi zhuan yu daojia sixiang* (易傳與道家思想). San Lian.

Clarke, J. J. (2000). *The Tao of the West: Western transformations of Taoist thought*. Routledge.

Cooper, J. (2007). *Cognitive dissonance: Fifty years of a classic theory*. SAGE Publications.

Fowler, J. (2005). *An introduction to the philosophy and religion of Taoism*. Sussex Academic Press.

Fu. (1982). *Zhongguo tongshi* (Vol. 1) [中國通史 (上冊)]. Dai Zhongguo tushu.

Gough, A. G. (2004). Founders in environmental education. In W. Scott & S. Gough (Eds.), *Key issues in sustainable development and learning: A critical review* (pp. 215–219). Routledge-Falmer.

Hansen, C. (1992). *A Daoist theory of Chinese thought*. Oxford.

Hisrich, D. R., Peters, P. M., & Shepherd, A. D. (2013). *Enterpreneurship* (9th ed.). McGraw-Hill Irwin.

Ho, O. N. (2016). Teachers as translators in Asian religious education. In M. C. Lam & J. Park (Eds.), *Sociological and philosophical perspectives on education in the Asia-Pacific Region*. Springer.

Hsia, H. J. (1992). *Philosophical & religious thought in China*. American Associates Publishing.

Huang, Z. (1992). *Boshu Laozi jiao zhu xi* (帛書老子校注析). Xuesheng shuju.

Jacquar, A. (2001). Cong Jiazhi dao jiage (從價值到價格). In *J' accuse l'economie triomphante* (我控訴霸道的經濟) (pp. 63–66). Guangxi shifan daxue.

Jia, N., & Park, J. (2022). Institutional brand construct and university sustainability. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (163–175). Springer. http://doi.org/10.1007/978-981-19-5104-6_10.

Jickling, B. (2004). Why I don't want my children educated from sustainable development. In *Key issues in sustainable development and learning* (p. 137). Routledge Falmer.

Kaplan, D. R. (2001). *The coming anarchy: Shattering the dreams of the Post Cold War*. Vintage Books.

Kirschenbaum, H. (1977). *Advanced value clarification*. University Associates.

Laozi. (1989). *Chinese classics: Tao Te Ching*. The Chinese University Press.

Laozi. (1992). *The Tao of Tao Te Ching: A translation and commentary* (M. Lafargue, Trans.). State University of New York Press.

Laozi. (2001). *Dao De Jing: The book of the way, Laozi* (R. Moss, Trans.). University of California Press.

Laozi. (2003). *Dao De Jing: A philosophical translation, featuring the recently discovered bamboo texts* (T. A. Roger & D. Hall, Trans.). Ballantine Books.

Lee, K. (2013). *Schumpeterian analysis of economic catch-up knowledge, path-creation, and the middle-income trap*. Cambridge University Press.

Littlejohn, L. R. (2009). *Daoism: An introduction*. I. B. Tauris.

Li, J. (1962). Di er pian: Zhoudai houqi (第二編: 周代後期). In *Xian Qin liang Han jingji shi gao* (先秦兩漢經濟史稿) (pp. 37–140). Zhonghua shu ju.

Li, Z. (2011). *Zhexue gangyao* (哲學綱要). Beijing Daixue chu ban she.

Moeller, H. (2006). *The philosophy of the Daodejing*. Columbia University Press.

Morrien, R., & Kipp, J. J. (2010). *Staatsbankrott voraus!: Hintergruende, Strategien und Chancen, die Sie kennen muessen*. FinanzBuch Verlag GmbH.

Postman, N. (1995). *The end of education: Redefining the value of school*. Vintage Books.

Shunzi, E. (2001). *Yu zhu Dao De Jing* (御註道德經). Hainan chu ban she.

Siegel, H. (1990). The justification of critical thinking as an educational ideal. In *Education reason* (pp. 48–61). Routledge.
Si, X. (1992). *Huanglao xueshuo yu hanchu zhengzhi pingyi* (黃老學說與漢初政治評譜). Taiwan xuesheng shuju.
Smyth, C. J. (1996). Environmental values and education. In J. Mark, J. Halstead, & M. Taylor (Eds.), *Values in education and education in values* (p. 57). The Falmer Press.
Tang, S. (1978). *Zhongguo kaoshi shi* (中國考試制度史). Xuesheng shuju.
Tao, S. (1988). *Dao yan wu zhong* (道言五種). Zhonghua shuju.
Wang, Z. (2008). *Wenjing zhi zhi* (文景之治). Shanxi ren min chu ban she.
Wei, Z. (1992). *Zhongguo sixiang shi* (Vol. 1) [中國思想史(上冊)]. Buffalo.
Worldmeters. (2016). *Yearly growth rate (1951–2015)*. Retrieved April 12, 2016, from http://www.worldometers.info/world-population/#growthrate
Wu, Y. (1994). *Laozi Jieyi* (老子解義). Sanmin shuju.
Wu, Z. (2012). *Zhongguo gudai zhexue de shengtai yiyun* (中國古代哲學的生態意蘊). Zhonguo shehui kexue chu ban she.
Yu, R. (2004). *Laozi Jiedu: Laozi yu yuzhou wulixue ji qi zhexue sixian* (老子與宇宙物理學及其哲學思想). Zhonguo shehui kexue chu ban she.
Zheng, X. (2011). Kangde lun zhishi (康德論知識). In *Kangde xue shu* (康德學述) (p. 101). Shangwu yin shu guan.

Orlando Nang Kwok Ho is a Fellow of the Chartered Institute of Linguists (FCIL, UK). Educated in Hong Kong (CUHK, City UHK, and EdUHK) and Australia (UNSW), Dr. Ho has taught at high schools and universities as well as worked at private and public curriculum development institutes. He has academic degrees in multiple disciplines, including education, translation, history, Christian studies, economics, management, and defence studies. As a researcher, he is interdisciplinary and holistic in approach. His sees the world from the composite perspective of a teacher, a historian, a philosopher, and a spiritualist humanist. He is convinced that human epistemic efforts to make knowledge and make meaning are essentially situated within historical contexts. One of his intellectual interests is the study and interpretation of core sociocultural and philosophical texts that have longstanding and foundational influences on humanity. He believes in the abstract levels and good philosophical texts, which never become obsolete; it all depends on learners.

Chapter 6
Elite to Mass to Universal: The Historical Development, Internationalization and Sustainability of Tertiary Education in Hong Kong

Siu-Wai Wu and David Sorrell

Introduction

The development of tertiary education in Hong Kong has a history of more than one hundred years, as evidenced by the establishment of The University of Hong Kong (HKU) in 1911. To meet the urgent demands for teachers and industrial education, Hong Kong successively established colleges in the 1920s and 1930s. Many mainland refugees poured into Hong Kong after the Second World War. To satisfy the need of students from Chinese Middle Schools to qualify for enrollment in universities, John Keswick's 1952 report proposed a review of Hong Kong's tertiary education system. In 1959, the government announced the establishment of a university using Chinese as the main medium of instruction. Financial support was then initiated for the preexisting Chung Chi College, New Asia College, and United College in August of that year. In 1963, the Fulton Report proposed the establishment of a federal university comprised of the abovementioned colleges. In October 1963, The Chinese University of Hong Kong (CUHK) became the second university in Hong Kong. Before the 1970s, Hong Kong's limited tertiary places and programs were "highly regarded as elitist education" (Jung & Postiglione, 2015: p. 120). Owing to Hong Kong's industrial development, the Hong Kong Technical Institute made a significant expansion and moved to Hunghom on the Kowloon Peninsula in 1957. In 1971, the Hong Kong Technical Institute changed its name to the Hong Kong Polytechnic Institute. "A Perspective on Education in Hong Kong: Report by a Visiting Panel", suggested the provision of more opportunities for students to receive tertiary education. This was one priority in the development of Hong Kong education and was put forward in 1982. With the booming economy in the 1980s, the Hong Kong government built the second polytechnic institute and organized its third university. City Polytechnic of Hong Kong was founded in 1984 (accredited as City University of Hong Kong in

S.-W. Wu (✉) · D. Sorrell
The Education University of Hong Kong, Hong Kong, China
e-mail: swwu@eduhk.hk

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_6

Table 6.1 Trow's conceptions of elite, mass, and universal higher education

	Elite	Mass	Universal
Attitudes to access	A privilege of birth or talent or both	A right for those with certain qualifications	An obligation for the middle and upper classes
Functions of higher education	Shaping mind and character of ruling class; preparation for elite roles	Transmission of skills; preparation for broader range of technical and economic elite roles	Adaptation of "whole population" to rapid social and technological change
The student "career"	"Sponsored" after secondary school; works uninterruptedly until gains degree	Increasing numbers delay entry; more drop out	Much postponement of entry, softening of boundaries between formal education and other aspects of life; term-time working

*Source*Table constructed from Trow (2010: p. 558)

1994), and in 1988, The Hong Kong University of Science and Technology (HKUST) was established. In the latter part of the last century, education in Hong Kong was considered to be an elite system. As Martin Trow's scholarship states: elite to mass to universal, is the global trend in higher education (Burrage, 2012). The development of tertiary education in Hong Kong has similarly followed this trend. Trow's conceptions of elite, mass, and universal tertiary education are shown in Table 6.1. As Leung (2005) remarked, the 1980s signified the start of a period of massive expansion of degree education in Hong Kong. In 1980, only between 3–4% of the age cohort was engaged in undergraduate education.

At present, Hong Kong has 22 local degree-awarding tertiary education institutions (Education Bureau, 2020a), eight of which are funded through the University Grants Committee (UGC). The eight UGC-funded institutions are: City University of Hong Kong (CityU); Hong Kong Baptist University (HKBU); Hong Kong University of Science and Technology (HKUST); Lingnan University (LU); The Chinese University of Hong Kong (CUHK); The Education University of Hong Kong (EdUHK) (formerly The Hong Kong Institute of Education (HKIEd)); The Hong Kong Polytechnic University (PolyU); and The University of Hong Kong (HKU).

Around 15,000 publicly funded first-year-first-degree (FYFD) places are provided by the eight UGC-funded universities (Education Bureau, 2019). In addition, the UGC-funded universities starting from the 2018–2019 academic year have provided approximately 5,000 senior-year undergraduate students with the opportunity to participate on sub-degree programs (Education Bureau, 2019). Publicly funded sub-degree programs are provided by three of the UGC-funded universities (CityU, EdUHK, and PolyU), the Vocational Training Council (VTC), and The Hong Kong Academy of Performing Arts (HKAPA). Almost 90% of Hong Kong Diploma of Secondary Education (HKDSE) examination candidates have a chance to study in tertiary education in Hong Kong. Hong Kong now has a universal tertiary education system.

Globalization and Massification

Globalization and massification are two mega trends that have influenced the internationalization of contemporary tertiary education (Shin & Harman, 2009). Massification is claimed by Shin and Harman (2009: p. 1) to be "an extension of enhanced access" and that "…scale has changed the whole tertiary education landscape, impacting on governance, finance, quality, curriculum, faculty, and student demographics". The persistently high social demand for tertiary education and increased numbers of individuals with a degree are said to have led to the so-called massification of higher education (Teixeira, 2008: p. 241). Gibbons (1998) commented on the consequences for tertiary education systems and the increased numbers of students seeking a university-type education,

> First came growth in the old, elite universities. This was followed by the creation of new universities, then the expansion of non-university forms of post-secondary education offering different or no degrees, and finally, the assimilation of the new sectors into the degree granting system. (Gibbons, 1998: p. 11)

Tertiary education was traditionally dominated by public provision until the last three decades; notable growth in privately run institutions has been seen globally, but especially in Eastern Europe, Latin America, and East Asian countries (Teixeira, 2008). The "massive and continuous expansion" (ibid: p. 252) has been attributed to social and individual behaviors—the attractiveness to individuals of obtaining a tertiary education degree. Globally, such expansions have resulted in increasing financial constraints and challenges, with governments needing to redefine their financial, administrative, and political roles. As a result, private tertiary education promotion has "emerged as a viable policy alternative to the often over-stretched public sector" (ibid: p. 252). Private tertiary education in Asia is not a new development. In the Philippines, the Institute of Accountancy was established in 1928 and subsequently attained university status in 1934 as a for-profit institution, namely The Far Eastern University (ibid). Other Asian countries with privately run universities by the turn of the twentieth century included Japan and China. By 1949, 40% or 205 universities in China were privately run (Teixeira, 2008).

This chapter reviews the development of tertiary education in Hong Kong from the elite to the mass and to the universal; analyzes the main development phase; and discusses the current situation and future challenges of tertiary education in Hong Kong. It also considers internationalization and globalization and their impact on the sustainable development of tertiary education in Hong Kong.

Elite Tertiary Education in the 1980s

The university sector by the late 1970s had accommodated no more than 2% of the relevant age cohort. As Huang (1974: p. 10) criticized, "a rough comparison with international performance would confirm easily the seriousness of the problem. The 2% provision at 1977/78 of university places among the population at the relevant age is not only low compared with developed nations but against many other developing countries as well". There was a great demand to increase the provision for youth to study at HKU and CUHK. In October 1982, the Governor Sir Edward Youde in his first Policy Address set the tone of expansion in tertiary education. He remarked that the growth rate of the two universities would be raised in order to meet Hong Kong's professional manpower needs and the aspirations of students (Wong, 2007). The combined undergraduate population at the two universities was stipulated to grow at 3% annually. To achieve the aim of having more than 12,000 students in the sector by the mid-1980s, "such a growth rate proved to be so slow that the participation rate of local university remained less than 8% by the end of the 1980s" (Lee, 2005: p. 104). In 1986, Youde announced the decision to establish Hong Kong's third university, HKUST, which was "conceived with the vision to set the Hong Kong knowledge-based economy in motion through nurturing innovative leaders and entrepreneurs" (Tang, 2015: p. 157). Three years later in November 1989, the next Governor, Sir David Wilson, announced in his Policy Address that university places would be increased by approximately 50% from 10,500 to 15,000 by 1994–1995 (Morris et al., 1994; Tang, 2015). This announcement was prompted, in part, in response to the 1989 military crackdown in Beijing against the student democracy movement and the subsequent concerns and uncertainties of the local population regarding Hong Kong's future security and politics (Tang, 2015).

In elite tertiary education, many students went overseas to study. According to the Annual Report of the Hong Kong Government (Table 6.2), from 1980 to 1996, nearly 240,000 students went to Britain, the USA, Canada, and Australia. Student admission to tertiary education expanded in the beginning of the 1990s, and thus, the number of students who studied abroad gradually reduced from 21,155 in 1990 to around 14,000 in 1996. This figure was similar to the annual number of first-year students in tertiary education, i.e., 14,500 in UGC-funded programs. In other words, nearly half of students went overseas in 1990 because they failed to enroll in local universities. However, elite tertiary education drove some students to go overseas for their studies. Some brought back Western culture and habits when they returned to Hong Kong to settle down and, therefore, helped Hong Kong society easily connect with Britain, the USA, and other English-speaking countries. In the Thematic Household Survey Report No. 21 (Pattern of study in higher education) carried out between June and August 2004, it was estimated that out of the 2,215,100 domestic households in Hong Kong at the time of enumeration, some 212,400 (9.6%) had household members aged 15 and over who had completed their tertiary education outside Hong Kong.

Table 6.2 Number of Hong Kong students studying abroad between 1980 and 1996

School years	Britain	US	Canada	Australia	Total
1980–1981	4,134	2,012	4,803	404	11,353
1981–1982	4,276	3,264	4,752	987	13,279
1982–1983	5,547	2,088	3,946	757	12,338
1983–1984	5,394	2,049	3,284	428	11,155
1984–1985	4,733	1,820	2,850	473	9,876
1985–1986	4,158	1,872	2,953	564	9,547
1986–1987	4,254	2,245	3,405	812	10,716
1987	4,232	3,679	3,616	1,877	13,404
1988	3,856	4,215	3,808	3,147	15,026
1989	4,539	4,855	5,096	4,676	19,166
1990	4,349	5,840	5,681	5,285	21,155
1991	4,428	5,866	4,541	3,590	18,425
1992	4,408	5,410	3,583	2,866	16,267
1993	3,477	5,025	2,828	3,153	14,483
1994	3,222	4,555	2,787	3,109	13,673
1995	2,979	4,187	2,603	3,579	13,348
1996	2,506	4,782	2,607	4,200	14,095

*Source*Table constructed using data from Hong Kong Yearbooks (1981–1996)

Mass Tertiary Education in the 1990s

Significantly, in 1989, the Hong Kong government decided to expand the number of places for students entering first-degree programs in the 1990s. This development signified the turn from "an elitist system to a massive expansion of opportunity for undergraduate education" (Mok, 1999: p. 145). The "brain drain" problem looked very serious during the 1980s and 1990s. Government officials estimated that emigration from Hong Kong had increased from 20,000 per annum in the early 1980s to 30,000 in 1988. As academics concluded, from a human capital perspective, "a brain drain should be associated with an expansion of higher education as the system increases output to compensate for outflow" (Hui, 1999: p. 235; Morris et al., 1994). Meanwhile, Cannon (1997: p. 315) also analyzed that "a number of factors: social pressure, the need to maintain confidence, manpower forecasts about changes in the economy, and the need to replace emigrants, led to the decision to increase higher education provision and expand the output of graduates and postgraduates". To avoid a possible talent vacuum after the handover in 1997, the government announced that the percentage of school-aged students who had obtained a bachelor's degree should be adjusted from 13% originally provided by the government in 1995 to 18%. Afterwards, the Secretary for Education and Manpower submitted a tertiary education proposal to the Executive Council that comprised of a plan to increase the admission to first-year bachelor's degree programs to 15,000 in 1995. The 1989 public sector reforms also supported the expansions, including the merging of five teacher training schools to form HKIEd (now EdUHK); the retitling of the two polytechnics as universities; and the upgrading of The Open Institute of Hong Kong to The Open University of Hong Kong (OUHK) (Tang, 2015). The university enrollment ratio of school-aged students increased to approximately 18%. These developments accelerated the growth of tertiary education in Hong Kong in the early 1990s. Cited in French (1999), the first-year-first-degree places targets of UGC-funded institutions were later revised to 10,086 in 1991–1992; 11,007 in 1992–1993; 12,520 in 1993–1994; and 14,500 in 1994–1995 and remained constant at that figure until 2012.

The expansion of tertiary education in Hong Kong at the beginning of the 1990s brought more opportunities for students who were interested in pursuing tertiary education. According to international standards, mass tertiary education is achieved when 15% or above of the school-aged population can receive a tertiary education. Hong Kong entered the mass tertiary education era in the early 1990s. The subsidy policy for post-secondary students was reformed. Increasing the role of students in shouldering tertiary education expenses and reducing governmental investment in the expansion of tertiary education became important strategies of the Hong Kong government in the development of tertiary education in the 1990s. In order to cope with growing costs, in 1991 the Hong Kong government substantially increased fees on the principle that beneficiaries should pay more. In 1992/93, students' fees represented an average of 8.2% of the recurrent cost of their education. This proportion was increased to 18.0% in 1997/98. Table 6.3 displays tuition fees for degree and sub-degree courses in Hong Kong between the 1992/93 and 1997/98 academic years.

Meanwhile, as Burrage (2010: p. 516) analyzed, "the growth of numbers without parallel increase in support by the state threatens the maintenance of the quality of instruction and research. The response of governments has been to demand greater productivity from universities". The Hong Kong government appeared not to notice the experiences of other Asian countries or districts in the development of mass tertiary education at that time. The grant that the government afforded to the UGC to support universities increased from HK$4.35 billion from 1991 to 1992 to HK$7.73 billion from 1994 to 1995, an increase of about 75%. Table 6.4 displays the 1991–1995 recurrent grants for the seven UGC-funded universities.

Table 6.3 Tuition fees for degree courses, Hong Kong, 1992/93–1997/98 (HK$)

	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
Degree course	$11,598	$16,996	$24,000	$30,568	$37,346	$42,096
Sub-degree course	$8,993	$12,745	$18,002	$23,267	$28,002	$31,574
Rate of increase (%)	16.0	46.6	41.2	29.3	12.7	12.7
Cost-recovery rate (%)	8.2	1.0.5	13.5	15.0	17.0	18.0

*Source*Hong Kong, Education, and Manpower Bureau (1997) (Yung, 2004: p. 69)

Table 6.4 Recurrent grants 1991–1995

	Academic year			
	1991–92	1992–93	1993–94	1994–95
University	HK$m	HK$m	HK$m	HK$m
CityU	720.414	865.360	981.226	1,017.868
HKBU	254.243	351.284	424.483	408.118
LU	84.320	127.923	153.985	162.862
CUHK	964.330	1,387.661	1,620.445	1,771.273
PolyU	914.771	1,227.809	1,333.305	1,245.353
HKUST	302.471	680.878	1,002.746	1,232.440
HKU	1,113.328	1,514.593	1,773.988	1,887.614
Total	4,353.877	6,155.508	7,290.178	7,725.528

*Source*http://www.ugc.edu.hk/eng/ugc/publication/report/quad_rpt/chapter3.htm

Universal Tertiary Education in the New Century

From elite education in the 1980s to mass education in the 1990s, tertiary education in Hong Kong became universal at the onset of the new century. Postiglione (2002: p. 309) remarked as 1997 approached that Hong Kong's academic profession was "increasingly self-conscious, slightly more activist, and globally networked" with increased caliber due to the virtue of postgraduate education and its expansion. In 2000, the then Chief Executive Tung Chee Hwa highlighted in his policy address the expansion of university admissions, which would enable students receiving tertiary education in Hong Kong to comprise 60% of the relevant age. At that time, the UGC pointed out that children aged 15 years and above pursuing senior college education merely accounted for one-fifth of the age group. After the government recommended that universities should provide 15% of the 17–20-year-old population with sub-degree courses, several universities under the UGC announced plans to introduce sub-degree courses in 2001. The Education and Manpower Bureau opened up land for the construction of community colleges by releasing the Academic Accreditation Funding Scheme and announced the inclusion of admission to associate degrees in the official recruitment system (the Joint Universities Admissions System). Within five years, the percentage of high school graduates receiving post-secondary education in Hong Kong increased from 33% between 2000 and 2001 to 66% between 2005 and 2006. Furthermore, in Hong Kong, the number of 17–20-year-olds participating in post-secondary education increased from just 9% in 1980 to 67% in 2013 (World Bank, 2015). This has been considered "a rapid expansion compared to Western countries" (Jung & Postiglione, 2015) and, therefore, steered the tertiary education sector to move towards a post-massification era (Wan, 2015). The massification plan of tertiary education, therefore, which stipulated that the Hong Kong Government would spend 10 years accomplishing this goal, was ahead of schedule.

The development of tertiary education in Hong Kong from the mass to universal also changed the role of the government in the tertiary education system (Lee et al., 2022). Tang (2015: p. 158) commented that Hong Kong's sociopolitical history had shaped tertiary education policies transforming "the elitist higher education system toward a relatively massified one". The UGC (2002: p. 64) believed that, "the change of educational model will change the role of the government. The government will transition from centralized local school operation and management of educational resources to the procurement of educational service internationally". As Clinton (2008: p. 119) pointed out "the second phase of expansion entailed two changes of major strategic significance. The first was a shift to enrolment-driven funding. The second saw a shift in the focus away from the public sector towards an expanding private sector". After learning from the experiences in the massification of tertiary education worldwide, the Hong Kong government encouraged tertiary educational institutions to implement sub-degree programs, operated on a self-financing basis. The government provides a package of financial assistance schemes to eligible students, including means-tested grants, low-interest loans, non-means-tested loans, and travel subsidies. Lee (2014) commented that the tertiary education sector is more diversified due to a shift in major policy that has created UGC-funded and other private or self-financed institutions. In addition, he claimed private higher education provides more choices for students and alternative pathways without over-reliance on the eight UCG-funded institutions.

The Hong Kong government's vision of post-secondary education expansion was that "the majority of future students would not necessarily pursue a Bachelor's degree. They could, instead, become tooled for the knowledge economy through shorter and less expensive programmes" (Post, 2003: p. 552). Sub-degree programs met the requirements of UGC-funded university programs in terms of quality, but reduced the unit costs by half. This demonstrated that "…in the process of privatizing higher education, the Hong Kong government has adopted a public-aided approach to transform the higher education landscape from public dominance to a public–private mix" (Chan & Lo, 2007: p. 312–313). This expansion has been almost exclusively in the self-financed sector, which has grown significantly since the publication of the UGC's Higher Education Review Report 2002. The population aged 15 and above that received post-secondary education in Hong Kong increased from 17.4% (tertiary education) in 1998 to 28.9% (combined total of sub-degrees and degrees) in 2013. Furthermore, Table 6.5 shows that in 2014, the combined total of post-secondary courses of aged 15 and above people was 29.9% and steadily increased each year to 33.9% in 2019 (Education Bureau, 2019).

Current Situation of Tertiary Education in Hong Kong

In the 2019–2020 academic year, there are over 101,000 students enrolled for full-time and part-time publicly funded undergraduate and postgraduate courses in Hong Kong (UGC, 2020a). The other degree-awarding tertiary institutions, not funded by

Table 6.5 Percentage distribution by educational attainment of Hong Kong population aged 15 and above

Education attainment	2014	2015	2016	2017	2018	2019
Primary and below	19.7	18.9	18.7	18.2	17.9	18.0
Secondary[a]	50.5	50.2	49.7	49.7	49.0	48.1
Post-secondary						
• Diploma/Certificate courses	3.2	2.7	2.6	2.4	2.5	3.2
• Sub-degree courses	4.7	4.8	5.0	5.0	5.2	5.4
• Degree courses	22.0	23.3	24.0	24.8	25.4	25.3

*Source*https://www.edb.gov.hk/en/about-edb/publications-stat/figures/educational-attainment.html (Education Bureau, 2020b). *Note* [a]Persons with educational attainment at secondary level refer to those with Secondary 1–7 education or equivalent level.

the UGC, include the publicly-funded Hong Kong Academy for Performing Arts (HKAPA), the self-financing Open University of Hong Kong (OUHK), Hong Kong Shue Yan University (HKSYU), Chu Hai College of Higher Education, Hang Seng Management College, Tung Wah College, Caritas Institute of Higher Education, Centennial College, the Technological and Higher Education Institute of Hong Kong (THEi) of the VTC, Hong Kong Nang Yan College of Higher Education and HKCT Institute of Higher Education. The first private university was established with the upgrading of Shue Yan College to become HKSYU in 2008. The College was founded due to the "acute shortage of tertiary places for local secondary school leavers aspiring for a university education" (HKSYU, 2020).

The massification of tertiary education in Hong Kong is not ascribed to increasing government-funded programs, but to following the neoliberal trend of diversifying provision through marketization. "Indeed, the rapid expansion of self-funded professional higher diploma courses and associate degrees are the main cause for the massification of tertiary education. We hence have witnessed that a number of community colleges have been established to provide these programmes over the past few years" (Lo & Ng, 2013: p. 39–40). The reliance of sub-degrees as opposed to bachelor's degrees and self-funding rather than public funding programs are considered by commentators as explanations for tertiary education expansion in Hong Kong (Jung & Postiglione, 2015). For sub-degree program activation, the HKSAR government supported initial start-up costs to post-secondary education providers in 2001 with a loan scheme (Jung & Postiglione, 2015). Based on the commonly used statistical tables found on the UGC website, Table 6.6 shows that the number of students for first-year first-degree courses increased gradually from 15,729 in 2009/10 to 17,410 in 2015/16. In addition, this number rose to a 18,362 headcount in the 2019/20 academic year (UGC, 2020b).

As we know, "the additional enrolments have been concentrated towards associate degrees. Whether these are suited as a terminal qualification to equip students for a knowledge-based economy appears to have been questioned by many of graduates, who see it more as a stepping stone to an undergraduate degree" (Kember,

Table 6.6 Number of students in tertiary education at UGC-funded institutions

	2009/10	2011/12	2013/14	2015/16	2017/18	2019/20
Number of students on sub-degree courses	7,009	6,927	5,975	5,394	4,593	3,482
Number of students on degree courses	56,610	58,412	78,219	82,603	85,119	86,867
Number of students on taught postgraduate courses	3,611	3,686	3,427	3,421	3,000	2,873
Number of students on research postgraduate courses	6,322	6,572	7,014	7,370	7,603	8,378
Total number of students	73,552	75,597	94,635	98,788	100,315	101,600
Number of students on first-year bachelor-degree courses	15,729	16,354	17,089	17,410	18,096	18,362
Senior-year intake*	2,146	2,288	3,303	4,559	4,979	5,074

*Source*Table constructed using data from relevant UGC statistics, http://cdcf.ugc.edu.hk/cdcf/searchStatSiteReport.do. *Students admitted to Year 2 of a three-year degree course or Year 3 of a four-year degree course after completing a sub-degree program

2010: p. 177). Many institutions have promoted the Associate Degree and High Diploma qualifications as a stepping-stone towards articulation to degree programs in this period. In practice, a number of sub-degree graduates enroll in top-up degree programs in the self-financing sector. Many local interested parties forced the government to enhance the quality of related programs and to require the increase in the number of sub-degree programs linked to degree programs. The Hong Kong government subsequently increased the senior-year intake from 1,270 in 2005/6 to 3,303 in the 2013/14 academic year. After the Chief Executive's 2014 Policy Address, the Chairman of the University Grants Committee (UGC) Mr. Edward Cheng warmly welcomed the government's initiative to progressively increase the publicly funded senior-year undergraduate intake places by 1,000–5,000 in UGC-funded institutions by the 2018/19 academic year (UGC, 2014).

Although tertiary education in Hong Kong has transformed into a universal system, the numbers of students studying outside Hong Kong has remained relatively constant since 2000. Based on survey figures from the Census and Statistics Department, it was estimated that out of the 2,324,400 domestic households in Hong Kong between November 2009 and February 2010, some 66,000 (2.8%) had members aged 25 or below studying outside Hong Kong in school or post-secondary education. Altogether, the survey suggested there were an estimated 75,000 Hong Kong students aged 25 or below studying outside Hong Kong at the time of enumeration. At the same time, some 57,300 households (2.5%) had household members aged 25 or below who intended studying outside Hong Kong during the five years after enumeration. Altogether, some 66,700 people aged 25 or below at the time of enumeration intended to study outside Hong Kong during the five years after enumeration. This finding is similar to 2.9% of households who had members aged 25 or below studying outside Hong Kong in 2002.

Internationalization in Hong Kong Tertiary Education

One means by which tertiary education institutions internationalize themselves is through non-local student recruitment (Lee, 2014; Lo & Ng, 2013). The number of international students enrolled outside their country of citizenship has risen globally from 0.8 million in 1975 to 4.5 million in 2012 (OECD, 2014) with the largest numbers from mainland China, India, and Korea (OECD, 2013). Fifty-three percent of all students studying abroad are from Asian countries (OECD, 2013, 2014). It has been projected that Asian countries will dominate the demand for international tertiary education with an increase to 7.2 million international students in 2025 from 1.8 million international students in 2000 (Altbach & Knight, 2007). The University Grants Commission (UGC) based in Hong Kong reiterated this view in the higher education review report entitled *"Aspirations for the higher education system in Hong Kong"* published in 2010 (UGC, 2010). Skidmore (2012) similarly stated that a predicted 70% of the global demand for tertiary education would originate from Asian countries.

In some countries, including Finland, Iceland, and Norway, non-local and local students do not pay annual tuition fees. In comparison, both local and non-local students generally pay fees in Japan and Korea, (OECD, 2014). In a number of countries including Australia (except students from New Zealand), Canada, and New Zealand (except students from Australia and those enrolled in advanced research programs) and the Russian Federation, non-local students pay higher tuition fees than local students (OECD, 2014). This is similarly the case in Hong Kong, even though institutions benefiting from government incentives to expand their private provision must operate on a not-for-profit basis. At the eight UGC-funded institutions, local students pay a standardized and heavily subsidized tuition fee of HK$42,100, whereas, for non-local students, fees are more than twice or over three times as much (Lo & Ng, 2013). As two examples, at The Education University of Hong Kong, non-local students pay HK$140,000 per annum for their undergraduate program (EdUHK, 2020) and at The Chinese University of Hong Kong, non-local students pay HK$145,000 (CUHK, 2020). Hong Kong and other localities in the Asia–Pacific region have initiated policies attracting non-local/international students to generate revenue or recover costs as an explicit component of their socio-economic development (Mok & Yu, 2014; OECD, 2014).

Other motives for internationalization include course accreditation in other countries (Altbach & Knight, 2007) or universities in English-speaking countries establishing international links or partnerships (Kirkpatrick, 2014). Established in 2004, The University of Nottingham Ningbo China (UNNC) was the first Sino-foreign University to open in mainland China with full approval from the Chinese Ministry of Education (University of Nottingham, 2015). Another example of earning money potential has been seen in universities worldwide adopting English as their MOI (Altbach & Knight, 2007; Kirkpatrick, 2014; OECD, 2014; Skidmore, 2012). In Hong Kong, English is an official language, as is Cantonese with 89.5% of the population communicating in the Chinese dialect on a daily basis (GovHK, 2020a).

Despite the majority of the local students having Cantonese as their first language (L1), six of the eight UGC-funded institutions have adopted English as their MOI; CUHK has a bilingual policy of Chinese and English; and through its language policy, HKIEd (now EdUHK) is aiming for functional trilingualism in Cantonese, English, and Putonghua (Kirkpatrick, 2014; Skidmore, 2012).

Transnational tertiary education and internationalization were described by Ng (2011: p. 118) as "The mobility of students, university faculties, knowledge, and even values". Increased access to tertiary education is certainly apparent in Hong Kong with a total of 105 institutions from countries including the UK, Australia, USA, mainland China, and Canada exporting 659 programs to Hong Kong (Ma and Yu 2014). Since the late 1970s, CUHK has partnered with mainland institutions on research activities and, in March 2014, the Ministry of Education gave formal approval for the establishment of The Chinese University of Hong Kong, Shenzhen [CUHK (SZ)] (CUHK (SZ), 2015). In November 2019, the EDB in Hong Kong announced that for 2020, the number of mainland higher education institutions participating in the Scheme for Admission of Hong Kong Students to Mainland Higher Education Institutions (Admission Scheme) would increase to 122 from 21 provinces or municipalities and one autonomous region (GovHK, 2019). In addition, offices and campuses of overseas universities have been established in Hong Kong. From the UK, these include the University of Middlesex and University of Ulster; from the USA, the Savanna College of Arts and Design (SCAD), a private, non-profit and accredited university; University of New South Wales in Australia; and University of British Columbia in Canada (Mok & Yu, 2014). For ten years, the University of Chicago had an Asian campus in Singapore, however, it decided to relocate to Hong Kong in 2014.

Hong Kong as an Education Hub

In 2004, the Hong Kong government attempted to internationalize its tertiary education system by developing itself into a regional education hub (Cheng et al., 2011; Lai & Maclean, 2014; Lee, 2014; Lo & Ng, 2013; Lui, 2014; Mok & Yu, 2014; Ng, 2011, 2012; UGC, 2010). Lo (2016) claims Hong Kong to be "one of the acclaimed education hubs". In his 2007–2008 Policy Address (Tsang, 2007: p. 40), the then Chief Executive of the Hong Kong Special Administrative Region (HKSAR) Donald Tsang Yam-kuen stated explicitly his intention to expand the population of international students studying in Hong Kong. He said, "Attracting more outstanding students to study in Hong Kong will enlarge our pool of talent and enhance the quality of our population. It will also help create a diversified cultural and learning environment, and broaden the horizons of our students". Furthermore, he announced measures the Government would introduce to encourage such students. These included: increasing the admission quotas for non-local students to local tertiary institutions; relaxing employment restrictions on non-local students; and to provide scholarships with the aim of strengthening support to local and non-local students.

The long-term sustainability of Hong Kong as a regional education hub is now in question, especially as mainland Chinese educational authorities have yet to recognize transnational education (TNE) programs Chinese students could pursue in Hong Kong, even those that are locally accredited by the HKCAAVQ. The Hong Kong Government maintains "Hong Kong as a Regional Education Hub: The Government has strived to enhance Hong Kong's status as a regional education hub through internationalization and diversification of the higher education sector. Our aim is to nurture talents for other industries and attract outstanding people from around the world, boosting Hong Kong's competitiveness and facilitating the long-term development of Hong Kong, Pearl River Delta region and the nation as a whole" (GovHK, 2020b).

The number of non-local students enrolled in UGC-funded programs was 1,239 in 1996–1997 (Lo & Ng, 2013). The figure rose to 2,871 in 2003–2004 with 2,536 or approximately 88% coming from mainland China (Lee, 2014). In the academic year 2007–2008, the UGC decided to place a 10% cap with the aim of controlling the numbers of non-local students eligible to study in Hong Kong's tertiary education sector (Skidmore, 2012). In 2008–2009, however, the cap was raised to 20% (Cheung et al., 2011; Skidmore, 2012) to cope with increased numbers of non-local students wishing to study in Hong Kong's eight UGC-funded tertiary education institutions. Non-local student enrolment increased to 10,770 in 2011–2012 (Lo & Ng, 2013); 13,661 in 2012–2013 (Lee, 2014); and 15,730 in 2015/16 (UGC, 2016). The number further increased to 17,050 in 2017 or 17% of the total number of students (LegCo, 2019).

In 2008, the number of mainland Chinese students was 92% of the total number of non-local students and steadily decreased to 71% in 2017 (LegCo, 2019). Lo and Ng (2013) highlighted commentaries suggesting that even though mainland Chinese students in Hong Kong are regarded as non-local, such recruitment expansion is actually a policy against the internationalizing goal of the tertiary education sector. Cross-border attractiveness, international reputation, and quality of education at universities in Hong Kong are described as reasons for mainland Chinese students deciding to study there (Lo, 2016). Mok and Yu (2014) echoed this view stating that the diversified tertiary education system, internationally recognized curriculum, scholarships provision, and unique blend of Chinese and Western cultures were reasons for foreign students being attracted to study in Hong Kong. Postiglione (2002) commented on the main obstacles to foreign students studying in Hong Kong tertiary education as high living costs and a shortage of dormitory facilities. On the other hand, Skidmore (2012) discussed the increased tensions between local and non-local students. The tensions included concerns over local student displacement; the diversion of additional finances to student recruitment overseas; and limited student housing.

One of the chapters in the UGC's (2010) report was devoted to internationalization, with ten recommendations made. One of the points raised was, "Internationalization is not the same thing as developing relationships with mainland China and encouraging mainland students to study in Hong Kong. The building of strong academic relationships with mainland China is an expression of Hong Kong's Chinese identity and a positive response to changing conditions. The development of a strong international character for Hong Kong's tertiary education will draw on and elaborate Hong Kong's inherent and historic strengths" (UGC, 2010: p. 52). Perspectives on the mainland were discussed in detail in the subsequent chapter of the report. In its 2013–2014 Annual Report (UGC, 2014), the UGC continued to voice its views on internationalization and Hong Kong's engagement with mainland China. The report detailed four new initiatives on internationalization to be supported using HK$30 million of funding from the EDB, UGC, and the eight institutions in the 2013–2014 and 2014–2015 academic years. The four initiatives cover: student multi-cultural integration; the setting up of a Hong Kong pavilion in international conferences to promote tertiary education in Hong Kong; a tertiary education sector-wide search engine to provide prospective students with easy access to information; and more exchange opportunities to subsidized travel abroad.

Conclusion and Sustainable Development

> Each chapter in this volume is borne of the conviction that historians and social scientists have a duty to use analysis of the past to generate clearer understandings of the present, to identify a wider range of policy options, and to help tertiary-education policymakers anticipate the consequences of their decisions. (Nelson & Wei, 2012: p. 265).

The above reminder, written in the book, *The global university: past, present, and future perspectives,* is worthy for us to reflect on the development of tertiary education in one place. As Lee (2008: p. 73) notes: "In Asia the higher education sector has continued to grow throughout the twenty-first century". The growth of tertiary education in Hong Kong is synchronized with the development per se of Hong Kong. Such growth has developed more significantly in the last three decades. Hong Kong tertiary education had an elite status during the 1980s and entered the mass education era in the 1990s. At present, it has become a massification tertiary education. Tertiary education in Hong Kong can be now considered a more mature system compared with other areas in the Asian-Pacific region. Hong Kong is regarded as a knowledge center and regional hub of tertiary education in the region. In the twenty-first century, the Hong Kong government realizes that it should change its role in tertiary education from a producer to a purchaser. Its strategy is not dissimilar to that described by Teixeira (2008: p. 232): "Higher education is being asked to cater to a growing and increasingly diverse population and to do so in a more economic and efficient way. One response to these challenges has been to promote the adoption of market elements in higher education systems, in particular through increased privatization".

The tertiary education participation rate of Hong Kong has subsequently increased from about 33% in the 2000–2001 academic year to over 60% in recent years. It is the case that the Hong Kong government needs to drive universities and institutes to use competitive methods to optimize management. However, the reliance on using self-financed sub-degree programs to expand tertiary provision has been criticized. As Wan (2015: p. 127) argues: "This policy has drawn repeated criticism by the society because of the quality of the self-financed sub-degree programs. Lack of articulation opportunities, the quality of education, and educated unemployment are the key challenges ahead". Little and Green (2009) point out that strategies for globalization should not be considered to be successful if they are not also sustainable in the long term. As one scholar found, "the sustainability of entry to the emerging post-secondary sector must become questionable if those entering the sector do not achieve the anticipated benefits. The sector is self-financing; so potential students must seriously question the rationale for investing in this form of post-secondary education if benefits do not seem to have accrued to past graduates" (Kember, 2010: p. 177). Meanwhile, at the meeting of the Panel on Education in the Legislative Council of Hong Kong held in January 2013, "quite a number of members were worried that under a commercialized and market-driven, self-financing post-secondary education had become merely the massive supply of study places" (Council Business Division 4, Legislative Council Secretariat, 2014: p. 5). The sustainable development of the sector has been questioned by many stakeholders in the city.

> The number of secondary school graduates will drop from 56,840 in the 2015/16 academic year to 42,700 in the 2021/22 academic year. Given an expansion of self-financing post-secondary programmes in recent years, there is already an over-supply of post-secondary programs in Hong Kong and we envisage that self-financing post-secondary institutions will face increasing difficulty in recruiting students in the years ahead. (Education Bureau, 2016: p. 8)

Tertiary education has been facing significant and persistent pressures to expand in recent decades, which has led to the emergence of mass tertiary education. Moreover, Hong Kong tertiary education cannot avoid the challenges imposed by the declining number of students. Based on the UGC's (2012) *Aspirations for the Higher Education System in Hong Kong*, as the demographic decline is worked through, the current cohort size of about 56,840 is expected to decline to approximately 42,700 in 2022, which would be a contraction of 25%. Therefore, local stakeholders cautioned that a down-size in post-secondary institutes is coming. However, a local educational organization proposed that, "caring for the prospects of approximately 200,000 sub-degree graduates in the past ten years, and providing the educational resources to improve the education degree of in-service youth, are the main issues that Hong Kong government must consider in planning the future development of education" (Hong Kong Federation of Education Workers, 2013). Catering for the need of lifelong education for sub-degree youth is a new challenge facing tertiary education in Hong Kong. Government, tertiary education institutions, and the public of Hong Kong need to discuss and explore the way towards sustainable development.

References

Altbach, P., & Knight, J. (2007). The internationalization of higher education: Motivations and realities. *Journal of Studies in International Education, 11*(3/4), 290–305.

Burrage, M. (2012). Reviews. Martin Trow: Twentieth-century higher education: Elite to mass to universal. *Higher Education Quarterly, 66*(1): 123–125.

Cannon, I. C. (1997). Higher education in Hong Kong. *Higher Education Quarterly, 51*(4), 308–324.

Chan, D., & Lo, W. (2007). Running universities as enterprises: University governance changes in Hong Kong. *Asia Pacific Journal of Education, 27*(3), 305–322.

Cheng, Y. C., Cheung, A. C. K., & Yuen, T. W. W. (2011). Development of a regional education hub: The case of Hong Kong. *International Journal of Educational Management, 25*(5), 474–493.

Cheung, A. C. K., Yuen, Y. W. W., Yuen, C. Y. M., & Cheng, Y. C. (2011). Strategies and policies for Hong Kong's higher education in Asian markets: Lessons from the United Kingdom, Australia, and Singapore. *International Journal of Educational Management, 25*(2), 144–163.

Clinton, D. M. (2008). *The consumer experience of higher education*. Continuum.

Council Business Division 4, Legislative Council Secretariat. (2014). *Updated background brief on issues related to the governance and regulation of the self-financing post- secondary education sector*. Legislative council, Hong Kong. http://www.legco.gov.hk/yr14-15/english/panels/ed/papers/ed20141110cb4-116-4-e.pdf

CUHK. (2020). *Undergraduate admissions fee calculator*. The Chinese University of Hong Kong. http://admission.cuhk.edu.hk/international/fees.html

CUHK (SZ). (2015). *University extension in Shenzhen*. The Chinese University of Hong Kong. http://www.szdo.cuhk.edu.hk/

Education Bureau. (2016). *Issues related to the policy on self-financing post-secondary programmes*. In LC Paper No. CB(4)1090/15-16(01). Hong Kong special administrative region government, Hong Kong.

Education Bureau. (2019). *Publicly-funded programmes*. Hong Kong special administrative region government, Hong Kong. https://www.edb.gov.hk/en/edu-system/postsecondary/local-higher-edu/publicly-funded-programmmes/index.html

Education Bureau. (2020a). *Institutions*. Hong Kong special administrative region government, Hong Kong. https://www.edb.gov.hk/en/edu-system/postsecondary/local-higher-edu/institutions/index.html

Education Bureau. (2020b). *Distribution of educational attainment of population aged 15 and over*. Hong Kong special administrative region government, Hong Kong. https://www.edb.gov.hk/en/about-edb/publications-stat/figures/educational-attainment.html

EdUHK. (2020). *Fees*. The Education University of Hong Kong, Hong Kong. https://www.eduhk.hk/degree/fees.htm

French, N. J. (1999). The reform of higher education in Hong Kong. In D. C. B. Teather (Ed.), *Higher education in a post-binary era: National reforms and institutional responses* (pp. 158–180). Jessica Kingsley Publishers.

Gibbons, M. (1998). *Higher education relevance in the 21st century*. The World Bank.

GovHK. (2019). Press releases: 122 mainland higher education institutions to admit Hong Kong students. Hong Kong special administrative region government. https://www.info.gov.hk/gia/general/201911/27/P2019112600577.htm

GovHK. (2020a). *Hong Kong: The facts*. Hong Kong special administrative region government. https://www.gov.hk/en/about/abouthk/facts.htm#:~:text=Language,legal%2C%20professional%20and%20business%20sectors

GovHK. (2020b). *Hong Kong: The facts: Education*. Hong Kong special administrative region government. https://www.gov.hk/en/about/abouthk/factsheets/docs/education.pdf

HKSYU. (2020). *A brief history of HKSYU*. Hong Kong Shue Yan University. https://www.hksyu.edu/en/about/

Hong Kong Federation of Education Workers. (2013). *For youth: To care the education of youth and to cultivate talent for Hong Kong*. Comments of education affairs. Retrieved May 2, 2013, from http://www.hkfew.org.hk/article/73/51824adf

Huang, R. L. (1974). Developments of higher education in Hong Kong. *The Educationalist, 5*, 7–14.

Hui, K. F. (1999). *A comparative historical analysis of higher education development in Macau and Hong Kong*. Ph.D. thesis, The University of New York at Buffalo.

Jung, J., & Postiglione, G. A. (2015). From massification towards the post-massification of higher education in Hong Kong. In J. C. Shin, G. A. Postiglione, & F. Huang (Eds.), *Mass higher education development in East Asia: Strategy, quality and challenges* (pp. 119–136). Springer International Publishing.

Kember, D. (2010). Opening up the road to nowhere: Problems with the path to mass higher education in Hong Kong. *Journal of Higher Education, 33*, 167–179.

Kirkpatrick, A. (2014). The language(s) of HE: EMI and/or ELF and/or multilingualism. *The Asian Journal of Applied Linguistics, 1*(1), 4–15.

Lai, A., & Maclean, R. (2014). Managing human capital in world cities: Reflections on Hong Kong developing into an education hub. In K. H. Mok & K. M. Yu (Eds.), *Internationalization of higher education in East Asia: Trends of student mobility and impact on education governance* (pp. 42–57). Routledge.

Lee, M. H. (2005). Major issues of university education policy in Hong Kong. *Journal of Asia Pacific Education Review, 6*(2), 103–112.

Lee, M. H. (2014). Hong Kong higher education in the 21st century. *Hong Kong Teachers' Centre Journal, 13*, 15–34.

Lee, S., Ma, S., & Lee, N. (2022). Delivering programs on education for sustainable development (ESD) and UN sustainable development goals (SDGs) in Mainland China and the Hong Kong special administrative region: An assessment of the Hong Kong institute of education for sustainable development. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 43–65). Springer. http://doi.org/10.1007/978-981-19-5104-6_4.

Lee, W. O. (2008). The repositioning of higher education from its expanded visions: Lifelong learning, entrepreneurship, internationalization and integration. *Journal of Educational Research Policy Practice, 7*(2), 73–83.

LegCo. (2019). Statistical highlights, ISSH16/18-19. Publicly-funded higher education. Research office, legislative council secretariat, Hong Kong. https://www.legco.gov.hk/research-publications/english/1819issh16-publicly-funded-higher-education-20190123-e.pdf

Leung, T. P. (Ed.). (2005). *Education quality work: The Hong Kong experience: A handbook on good practices in assuring and improving teaching and learning quality*. Eight UGC-funded higher education institutions.

Little, A. W., & Green, A. (2009). Successful globalization, education and sustainable development. *International Journal of Education Development, 29*, 166–174.

Lo, W. Y. W. (2016). Rethinking the notion of Hong Kong as an education hub: Towards a cosmopolitan approach to internationalization of higher education. In Y. C. Cheng, A. C. Keung, & S. W. Ng (Eds.), *Internationalization of higher education: The case of Hong Kong* (pp. 63–77). Springer.

Lo, Y. W., & Ng, S. K. (2013). A critical reflection on internationalization of higher education in Hong Kong: The search for a cosmopolitan alternative. *Asia Pacific Journal of Educational Development, 2*(1), 37–46.

Lui, T.-I. (2014). Opportunities and tensions in the process of educational globalisation: The case of Hong Kong. *Asia Pacific Viewpoint, 55*(2), 132–143.

Mok, K. H. (1999). Education and the market place in Hong Kong and mainland China. *Journal of Higher Education, 37*, 133–158.

Mok, K. H., & Yu, K. M. (2014). Introduction—The quest for regional hub status and transnationalization of higher education: Challenges for managing human capital in East Asia. In K. H.

Mok & K. M. Yu (Eds.), *Internationalization of higher education in East Asia: Trends of student mobility and impact on education governance* (pp. 1–26). Routledge.
Morris, P., McClelland, J. A. G., & Yeung, Y. M. (1994). Higher education in Hong Kong: The context of and rationale for rapid expansion. *Higher Education, 27*, 125–140.
Nelson, A. R., & Wei, I. P. (2012). *The global university: Past, present, and future perspectives.* Palgrave Macmillan.
Ng, S. W. (2011). Can Hong Kong export its higher education services to the Asian markets? *Educational Research for Policy and Practice, 10*(2), 115–131.
Ng, S. W. (2012). Rethinking the mission of internationalization of higher education in the Asia-Pacific region. *Compare: A Journal of Comparative and International Education, 42*(3), 439–459.
OECD. (2013). *Education indicators in focus, number 14.* OECD Publishing. http://www.oecd.org/education/skills-beyond-school/EDIF%202013--N%C2%B014%20%28eng%29-Final.pdf
OECD. (2014). Indicator C4: Who studies abroad and where? In *Education at a glance 2014: OECD indicators.* OECD Publishing. http://www.oecd.org/edu/EAG2014-Indicator%20C4%20%28eng%29.pdf
Post, D. (2003). Hong Kong higher education, 1981–2001: Public policy and re-emergent social stratification. *Journal of Oxford Review of Education, 29*(4), 545–570.
Postiglione, G. A. (2002). The transformation of academic autonomy in Hong Kong. In M. K. Chan & A. Y. So (Eds.), *Crisis and transformation in China's Hong Kong* (pp. 307–321). Sharpe Inc.
Shin, J. C., & Harman, G. (2009). New challenges for higher education: Global and Asia-Pacific perspectives. *Asia Pacific Education Review, 10*(1), 1–13.
Skidmore, D. (2012). Assessing Hong Kong's blueprint for internationalising higher education. *The International Education Journal: Comparative Perspectives, 11*(2), 81–102.
Tang, H. H. H. (2015). Democratizing higher education in China's Hong Kong: Between rhetoric and reality. In P. Blessinger & J. P. Anchan (Eds.), *Democratizing higher education: International comparative perspectives* (pp. 155–168). Routledge.
Teixeira, P. (2008). Mass higher education and private institutions. In *Higher education to 2030 volume 2: Globalisation* (pp. 231–258). Centre for Educational Research and Innovation/OECD Publishing.
Trow, M. (2008). Elite and popular functions in American higher education. In R. Lowe (Ed.), *The history of higher education.* Routledge.
Trow, M. (2010). From mass higher education to universal access: The American advantage. In M. Burrage (Ed.), *Twentieth-century higher education: Elite to mass to universal* (pp. 515–553). The Johns Hopkins University Press.
Tsang, D. Y. K. (2007). *The 2007–2008 policy address: A new direction for Hong Kong*. Office of the chief executive. http://www.policyaddress.gov.hk/07-08/eng/docs/policy.pdf
UGC. (2002). *Hong Kong higher education.* University Grants Committee. http://www.ugc.edu.hk/eng/ugc/publication/report/her/her.htm
UGC. (2010). *Aspirations for the higher education system in Hong Kong*. Report of the Hong Kong, University Grants Committee. http://www.ugc.edu.hk/eng/ugc/publication/report/her2010/her2010.htm
UGC. (2014). *UGC Chairman welcomes policy address initiative to increase senior-year undergraduate places.* University Grants Committee, Hong Kong. http://www.ugc.edu.hk/eng/ugc/publication/press/2014/pr15012014.htm
UGC. (2016). *Key statistics on UGC-funded universities.* University Grants Committee, Hong Kong. http://cdcf.ugc.edu.hk/cdcf/searchStatSiteReport.do
UGC. (2020a). *Profile of UGC-funded institutions.* University Grants Committee, Hong Kong. https://cdcf.ugc.edu.hk/cdcf/searchUniv.action?actionType=searchUniversity&mode=&lang=EN&lvForm.universities=CityU&lvForm.universities=HKBU&lvForm.universities=LU&lvForm.universities=CUHK&lvForm.universities=HKIEd&lvForm.universities=PolyU&lvForm.universities=HKUST&lvForm.universities=HKU&lvForm.fields=Enrol_Total_2019

UGC. (2020b). *Profile of UGC-funded institutions*. University Grants Committee, Hong Kong. https://cdcf.ugc.edu.hk/cdcf/searchUniv.action?actionType=searchUniversity&mode=&lang=EN&lvForm.universities=CityU&lvForm.universities=HKBU&lvForm.universities=LU&lvForm.universities=CUHK&lvForm.universities=HKIEd&lvForm.universities=PolyU&lvForm.universities=HKUST&lvForm.universities=HKU&lvForm.fields=Intake_FYFD_2019

University of Nottingham. (2015). *The University of Nottingham Ningbo China: About the University*. http://www.nottingham.edu.cn/en/about/index.aspx

Wan, C. (2015). Reforming higher education in Hong Kong towards post-massification: The first decade and challenges ahead. *Journal of Higher Education Policy and Management, 33*(2), 115–129.

Wong, M. K. (2007). *For the future: Sir Edward Youde and educational changes in Hong Kong*. Ming Pao.

World Bank. (2015). *Tertiary education statistics*. World Bank. http://data.worldbank.org/indicator/SE.TER.ENRR

Yung, M. S. (2004). Higher education. In M. Bray & R. Koo (Eds.), *Education and society in Hong Kong and Macao: Comparative perspectives on continuity and change* (pp. 61–72). Comparative Education Research Centre.

Siu Wai Wu started his career as a teacher educator since September 1995. He works in the Department of International Education at The Education University of Hong Kong (EdUHK). He completed his Bachelor degree at The Chinese University of Hong Kong (CUHK), Master of Education at The University of Hong Kong (HKU) and Ph.D. at Beijing Normal University (BNU). He now serves as Vice-Chairman of the Hong Kong Federation of Education Workers, Honorary Secretary of the Hong Kong Primary Education Research Association and Academic Secretary of The Hong Kong Council for Educational Administration. Meanwhile, he is Co-Investigator of Research Project: Cases of Life Education in Hong Kong and other selected regions in Asia. His research interest includes Hong Kong educational policy, Comparative education and glocal development, Teacher professional development and middle-manager learning, civic education and life education, Chinese culture and philosophical ideas.

David Sorrell has over twenty years primary, secondary and tertiary teaching experience in the United Kingdom, Hong Kong, mainland China and Macau. He undertook his Bachelor of Education and Master of Arts (Education) degrees in the United Kingdom, and Doctor of Education degree at The Education University of Hong Kong (EdUHK). He has published journal articles, authored and co-authored book chapters, and co-edited a book. Currently, David is Vice President of The International Association of Multilingual Education. He serves on the executive committees of The Comparative Education Society of Hong Kong (CESHK) and The Hong Kong Educational Research Association (HKERA), and is a Lifelong Fellow of The Asia Pacific Educational Research Association (APERA). David also serves on the Editorial Board of The International Journal of Comparative Education and Development as an Associate Editor. His research interests include second language acquisition, internationalism and comparative education.

Chapter 7
Liberal Studies Reform and Sustainability Consciousness in Hong Kong Tertiary Education

Tamara Savelyeva

Introduction

The recent replacement of the Hong Kong *New Senior Secondary Liberal Studies* into the *Civic and Social Development* signaled a U-turn in the city's liberal and sustainability education. Implemented in September 2021, this curricular turn, called 'optimization' (EDB, 2021) represents a radical move, which challenges the rationale, dynamics, and mechanisms of sustainability education at all levels of the Hong Kong educational system.

This U-turn has demoted the Liberal Studies' leading position as a provider of education for sustainability at both secondary and tertiary levels. For a decade, from 2009 to 2021, Liberal Studies has been a compulsory subject that formalized sustainability education in secondary education. This, in turn, influenced tertiary education by generating sustainability-related field activity themes, lecture topics, research, and independent studies in its general education learning modules. Indeed, the 2009 Liberal Studies reform bridged the curricular gap between the secondary and tertiary levels of sustainability education throughout Hong Kong.

The 2021 'optimization' of the Liberal Studies curriculum was far more than what this term formally implies: "an action or process of making the best or most effective use of a situation or resource" (Oxford University, 2004). At a stroke, it eliminated the liberal arts dimension of Liberal Studies and implemented glaringly different educational mechanisms—content, pedagogy, and assessment of what and how shall Liberal Studies be taught and assessed. These notable changes might seriously disrupt the continuity of sustainability education in Hong Kong. Such a lack of continuity is likely to weaken the quality of sustainability education.

T. Savelyeva (✉)
Hong Kong Institute of Education for Sustainable Development, Hong Kong SAR, China
e-mail: tvs3@cornell.edu

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_7

This chapter evaluates the effects of a decade-long *New Senior Secondary Liberal Studies* on Hong Kong university students in terms of their sustainability consciousness, which I define as a reflective process of constructing one's reality through formulating individual values, beliefs, goals, and strategies that lead to sustainable, systemic, and future-oriented changes (Capra, 2003; O'Sullivan & Taylor, 2004; Savelyeva, 2018, 2020; Savelyeva & Douglas, 2017). It will be followed by an analysis of the potential impacts of replacing the *New Senior Secondary Liberal Studies* with the 2021 *Civic and Social Development* curriculum on the sustainability consciousness of the Hong Kong youth.

This chapter is based on two pre-assumptions. The first pre-assumption is that the nature of sustainability education requires flexibility in its implementation. Thus, formalizing sustainability education through a compulsory Liberal Studies curriculum at the national level was an internationally unique practice. And the second pre-assumption is that a successful systemic educational reform starts with a philosophical tenet that underlies a curricular transformation. Farnham and Yarmolinsky (1996) characterized this guiding principle as a "philosophy around which there is a general agreement among teachers, scholars, and policymakers, as well as operable strategy … to make this philosophy work" (p. 5). Fostering sustainability consciousness in students implies a minimal yet fundamental compromise on the underlying educational philosophy, which is grounded in or aligned with values, beliefs, and goals of all the stakeholders, from the individual student to state institutions. However, the ongoing curricular re-construction (Savelyeva, 2013, 2014) or 'optimization' (EDB, 2021) of the only subject that meaningfully enacted sustainability education in the city is riding on the narrow ideas of non-global citizenship and knowledge, without much agreement of education stakeholders. This raises public concerns and becomes a source of controversy.

The goal of this chapter is twofold: (1) to review the sociological background of Hong Kong sustainability education, as a product of Liberal Studies curriculum policies and, within that context, (2) to discuss the findings of a two-year study on the sustainability consciousness of Hong Kong graduates, funded by the Research Grant Committee of the Hong Kong Government. The chapter begins with a brief introduction of the main characteristics and policy turns of the Liberal Studies curricula and sustainability education. The second part presents the three evolutionary stages—introduction, reintroduction, and 'optimization'—in the city's Liberal Studies policy in relation to sustainability education. The third section details the goals and aims of the curricular changes from the point of view of the Liberal Studies' underlying philosophy. The chapter draws on an empirical study on the Liberal Studies curriculum's influence on the sustainability consciousness of young Hongkongers after a decade of its implementation. The last section contains a discussion on the 'sustainability consciousness with a nil participation paradox' which depicts the core of the research findings. The chapter concludes with final remarks.

Evolving Sustainability Education with Liberal Studies

Liberal Studies has been providing a framework for environmental and sustainability-related modules in schools and universities in Hong Kong for over two decades, which includes a preparatory stage of the policy implementation. The simultaneous development of these two fields—Liberal Studies and sustainability education—and their gradual introduction into the city's curricular system took three major policy turns: the 1992 curricular introduction, 2009 reintroduction, and 2021 'optimization.' At its early stage, the classic guiding philosophy of Liberal Studies, educating a free man in a free country (Kimball, 1995; Maritain, 1943; Meyer, 1953), had been implicit.

At the later stages of the curricular evolution, the philosophy adapted practical terms and set aims that reflected changes in the city's economic and cultural context, such as developing students' independent learning ability and critical thinking skills to serve the knowledge-based economy of Hong Kong and ensure the well-being of its citizens (EDB, 2015; Lam, 2020). The practices and concepts of environmental and sustainability education joined the Liberal Studies formal educational sector after the 2009 curricular reintroduction.

The first significant turn of education policy, curricular introduction, brought the idea of Liberal Studies into tertiary institutions and secondary schools in 1992, that is, a few years after the British colonial government signed the 1984 Sino-British joint declaration. The inevitable prospect of the handover of the territory to the People's Republic of China set all social systems, including education, into the quest of transition. To be ready for the upcoming transition to the Mainland China and boost the territory's Chinese identity, the British colonial government introduced Liberal Studies to schools and universities. However, the first episode of the Liberal Studies reform and its introduction into the city's educational system was not successful. A non-statuary, elective structure of the subject, little funding support, either for the academy and legislatures, ignited an unenthusiastic response from the tertiary sector. Another reason was the fear that introducing Liberal Studies as an admission pre-requisite could decrease the quality of the university student's intake and affect access to governmental funds (Fung & Liu, 2017; Morris & Chan, 1997).[1]

Meanwhile, sustainability education was just getting its initial impetus under the auspices of the United Nations (UN) and its member states articulating the objectives and means of non-compulsory ecological and environmental education initiatives worldwide. The famous UN *Agenda 21* report (UN CED, 1992) called for an effective environment and development education, which aimed to "deal with the dynamics of both the physical/biological and socio-economic environment and human (which may include spiritual) development; …be integrated in all disciplines; and …employ formal and non-formal methods and effective means of communication" (p. 320).

The second significant turn of educational policy and curricular reintroduction took place in 2009, when Liberal Studies formally became a mandatory subject in

[1] Researchers reported that in order to receive governmental funding, the tertiary institutions had to ensure that their enrolment numbers covered 18% of the best qualified perspective students.

secondary schools and, indirectly through common core or general education courses, also in universities (BCRCGE, 2011). The compulsory status brought Liberal Studies to a whole new level in terms of importance and visibility of its numerous thematic areas, modality of instruction, and assessment. Sustainability-related topics such as environmental degradation, rural–urban social and economic gap, poverty alleviation, green technologies, and interdisciplinary, research-oriented, and project-based modes of teaching and learning set the stage for fostering sustainability consciousness in the secondary school graduates. They then entered universities to further broaden their sustainability mindsets by continuing to study sustainability themes and topics in the mandatory general education/common core university courses.

The 2009 formal inception of the *New Senior Secondary Liberal Studies* populated campuses with freshmen students who succeeded in passing Liberal Studies as a compulsory subject together with English, Chinese, and Mathematics in the Hong Kong Diploma of Secondary Education Examination (HKDSE), namely the university admission examination. Liberal Studies included six examinable modules: Personal Development and Interpersonal Relationships; Hong Kong Today; Modern China; Globalization; Public Health; and Energy, Technology, and the Environment. The 2009 *Liberal Studies* curriculum was implemented after lengthy planning with public consultations (Fung & Liu, 2017). Once implemented, it required an unprecedented mobilization of work force, structural alterations in the education system, and financial efforts by the Hong Kong Government.

In order to comply with the new policy and meet the changing times, tertiary institutions underwent a restructuring of scopes and responsibilities of their general education/common core curriculum units and research centers. Implemented in 2012 under the new 4-year curriculum of universities, general education/common core courses have been mandatory for undergraduate students (Liang & Cai, 2006). The structure and content of the universities' Liberal Studies are characterized by flexibility, which allows for a fast response to the changes in social, political, and economic climate in the city. Another unique characteristic of the Liberal Studies curriculum is its cultural sensitivity that promotes both Western and Chinese intellectual traditions, "melding of China's humanism with the West's liberal education … striving to find the right balance between a liberal education and a professional education" (BCRCGE, 2011, para. 2). In this respect, tertiary education units efficiently adopted the Western tradition of sustainability education to cultivate critical thinking, global outlook, and sustainability mindset in their learners.

During the 2009 reintroduction of Liberal Studies, sustainability education was gaining its momentum in the city's tertiary education system. Sustainability formally entered the universities under the pressure of global competition for high global status and ranking, which demanded an integrated, interdisciplinary, internationally recognized academia (Savelyeva & Park, 2012). Universities' sustainability offices and units were placed under the Offices of the Provost/Vice-President to lead implementation of campus sustainability throughout all university structures. Curriculum-wise, interdisciplinary sustainability topics were taught in general education/common core courses and also delivered by newly launched sustainability departments and programs. The institutional efforts to make their sustainability ranking highly visible and internationally recognized intensified efforts to highly efficient infrastructure as well as campus greening movements (Savelyeva, 2013). Green dining, recycling and waste management, green buildings, green festivals, and green curricula are but just a few examples of sustainability education initiatives and practices that became an integral part of university life. In addition, interdisciplinary research laboratories offered an experience of the sustainability-related independent studies to post-graduate and, partially, undergraduate students.

The third significant turn in the Liberal Studies educational policy occurred in 2021. Although hailed as curricular 'optimization' by the government, even the name *Liberal Studies* was replaced with *Civic and Social Development*. This 'reform of the reform' (Park & Savelyeva, 2019) was preceded by a series of political events (Chiu, 2018; Hui, 2018). The Liberal Studies curriculum, critical thinking in particular, was blamed for the city's political unrest by high government officials. They denounced Liberal Studies as providing an anti-government education to Hong Kong youth who, in turn, staged a 'uncovered chicken coup' (Ran, 2020; Wang, 2020). Consequently, the government set up the *Task Force on Review of School Curriculum* to investigate the issue and provide policy recommendations (GovHK, 2017, 2018).

The 2021 curricular 'optimization' was, in fact, a drastic change. It included: (1) change of the subject name to *Civic and Social Development*; (2) reduction of the study time in half from 250 to 130–150 hours; (3) reduction of the number of modules from six to three: Hong Kong under One Country-Two Systems, Our Country since Reform and Opening-up, and Interconnectedness and Interdependence of the Contemporary World; (4) replacement of an Independent Inquiry Study with a trip to the Motherland China; and (5) change of an assessment method from open essays to short multiple- and extended response choice questions, shortened examination time, and pass-fail marking system (EDB, 2021).

Sustainability education at the tertiary level, meanwhile, experienced a rapid advancement, after the Hong Kong Government officially pledged its support to the United Nations' Sustainable Development Goals (UN SDGs) in 2018 (Savelyeva, 2022d). The Government agreed for the city to become a regional chapter of the Sustainable Development Solutions Network (UN SDSN), a UN-based non-profit organization in charge of mobilizing resources for SDGs implementation. In alliance with the Hong Kong Jockey Club Charities Trust, the world's number five charity donor, the city agreed to contribute to the cause of partially closing the SDGs financing gap of USD 400 billion (Sachs et al., 2019). The SDSN was headquartered at The Chinese University of Hong Kong, a long-standing home of the city's *Institute of General Education and General Education Research Centre*. Soon after, other public universities joined the initiative and officially aligned their structures, curricula, initiatives, and research practices with the UN SDGs. Gaining priority status at the government level, sustainability education instantly crossed the narrow Liberal Studies' curricular implementation margins and penetrated all parts of the tertiary education sector, becoming a flagship requirement in all parts of the university system (Park & Savelyeva, 2022; Savelyeva, 2012a).

There are relatively few studies connecting Liberal Studies reform and sustainability education and even less limited scope of empirical studies on the curriculum's influences on university students. One of the few was a study on educators' concern over the curriculum design conducted by The University of Hong Kong (HKU) researchers (Fung & Yip, 2013). The HKU team surveyed 366 participants to evaluate the early curriculum implementation. Another study worth noting was conducted by Chong (2015) on the effects of the curriculum on students' perception of citizenship. These studies complemented the annual curriculum implementation surveys conducted by the Education Bureau (GovHK, 2014), some of them prior to the game-changing political unrests in 2014 and 2019/20. Two of the studies, Fung and Liu's (2017) and Fung and Liang's (2018) investigations of the moral and national education aspect of Liberal Studies, were conducted during the times of the social unrest.

This current chapter presents the latest available 2016–18 study on sustainability consciousness of Hong Kong youth (Park & Savelyeva, 2019; Savelyeva, 2018, 2022a, b; Savelyeva & Douglas, 2017) that covered a population of almost 5,000 first-year university students and investigated the influences of the Liberal Studies curriculum on their sustainability mindset.

Goals, Expectations, and Implementation Efforts

Ever since the introduction of Liberal Studies in 1992, Hong Kong policy researchers (Fok, 1997; Morris & Sweeting, 1991) have been discussing an idea of possible political rooting of the Hong Kong Liberal Studies reform. The discourse started with Morris and Sweeting's (1991) study that explored the relationship between political power and curricular reforms in Hong Kong. Conducted at the end of the territory's British colonial time, the study gathered historical evidences in support of an arguable 'politico-phobia' of the city's education system. The researchers used the prism of decolonization and engaged in the discourses of the curricula's sensitivity to direct political influences and their roles in promoting national character, identity, and moral values.

The complexity of the relationship between education and politics is evident and well addressed by educational researchers (Wu & Sorrell, 2022; Lingard, 2013; Morris & Chan, 1997; Thomas, 1983). The mutual influence between politics and education is hard to debate, especially on a historical timeline of the social and political unrests that affected Hong Kong prior to the curricular U-turn of 2021. Yet, it is useful here to dismiss the linearity of the historical method and approach the complex issue of the Liberal Studies' intentionalities with a nonlinear, non-chronological conceptual method of meaning-making (Court, 2004; Creswell & Poth, 2018). In order to reach deeper insights of the issue, I will apply a lens of the Liberal Studies' underlying philosophy—upbringing of a free man in a free country—which guided the initial preparatory period of the reform from 1992 onwards, as a methodological tool. Although it has been argued that the first two stages of the Liberal Studies reform were mainly inspired by political motives, a closer look through the lens of the guiding philosophy that underlies these changes can shed light on the problématique.

Looking at the successful implementation of Liberal Studies in 2009, it has been argued that since the handover of Hong Kong sovereignty to China in 1997, the Hong Kong Special Administrative Region Government (hereafter, 'Government') has sought to transform local youth into loyal citizens of the Motherland (Fok, 1997; Lee, 2004; Morris & Sweeting, 1991). In these settings, Liberal Studies, which gained a mandatory subject status, has been identified as a medium for instilling national identity and patriotism among Hong Kong students.

However, the 2009 Liberal Studies curriculum reintroduction as a compulsory subject suggests that its original intention and rationale for change were rather ambitious and universal. Liberal Studies' philosophical ideal that guided the intentions for policy changes and curriculum transformation was in the line of the "education directed toward wisdom, centered on the humanities, aiming to develop in people the capacity to think correctly and to enjoy truth and beauty, is education for freedom, or liberal education" (Maritain, 1962/1976, p. 69). Hence, the goals, objectives, and aspirations of liberal education were aligned with an ideal of upbringing globally minded, sustainability-conscious, value-centered new generation of young people for the prospering and sustainable knowledge society.

In the stage of public consultation, the Government produced an informative pamphlet called "Liberal studies—It benefits you for life" (EMB, 2004). Such a noble goal did not languish in time but gained momentum after Liberal Studies became a compulsory subject. A succinct promotional document published by the newly renamed Education Bureau (former Education and Manpower Bureau, equivalent to the Ministry of Education in other countries) wrote the following briefing for Secondary 4 students in the academic year 2013/2014 who would take the university entrance exams in 2016:

> Liberal Studies aims to broaden students' knowledge base and enhance their social awareness through the study of a wide range of issues. The modules selected for the curriculum focus on themes that are significant to students, society and the world, and are designed to enable students to make connections across different fields of knowledge and to broaden their horizons. (Education Bureau New Senior Secondary Section, 2013)

Expectations of the Government were grand in their scope, and the corresponding efforts and mobilization of resources to reintroduce the Liberal Studies subject were no less significant. Mobilization and investments made in terms of financial resources, human resources, structure to create newly specialized teachers, university bachelor degree level majors, and post-graduate specialisms were enormous in the past two decades. In 2018, for instance, about 90% of Liberal Studies teaching materials were developed by teachers themselves (EDB, 2017).

At the macro-level of the educational system, the Government's expenditure in education has only peaked over the past two decades. In the 2021/2022 financial year (Table 7.1), the expenditure on the post-secondary and secondary sectors totaled for almost 58% of the overall educational spending (EDB, 2022). An annual increase in estimated government expenditure on education by 4.8% has accounted for 13.8% of the total 2022/23 budget (GovHK, 2022).

The underlying philosophy of liberal education, in the context of the reform, and the intentions of Liberal Studies suggest that there were high and ambitious

Table 7.1 Hong Kong Government expenditure on education (Education Bureau, 2022)

	2019–20	2020–21	2021–22 Revised estimates
Total expenditure on education (HK$ million)	125,341	107,040	106,785
As percentage of total government expenditure (%)	20.6	13.1	15.3
As percentage of Gross Domestic Product (GDP) (%)	4.4	4.0[a]	3.7[a]
Recurrent expenditure on education (HK$ million)	92,438	97,297	97,171
Spent on (%)			
Primary education	24.4	24.2	24.1
Secondary education	32.3	31.6	31.5
Post-secondary education	25.9	25.2	25.4
Others[b]	17.4	19.0	19.0

Note [a] Figures are subject to revision. [b] Pre-primary education, special education, vocational and professional education, and Bureau support

universal ideals and goals that defined the success of the 1992 introduction and 2009 reintroduction of the curriculum in the city. More importantly to this chapter, the two stages of the Liberal Studies reform also provided a mandatory subject framework for sustainability education both at the secondary and tertiary levels. Under the 2021 'optimization,' the referred framework was to no avail.

The results of the empirical study reported in the next section show that, sustainability-wise, the 2009 Liberal Studies curriculum served well as a pedagogic framework, achieved its goals, and made a difference by fostering sustainability consciousness among its main beneficiaries—the Hong Kong youth.

Liberal Studies' Impact on Life: An Empirical Study on Students' Sustainability Consciousness

If education can stir a sense of national identity and citizenship, it "can also help to foster a strong sense of environmental citizenship that can motivate people" (Harris, 2012, p. 66). The 2016–18 study of the Liberal Studies curriculum influences on the sustainability consciousness of Hong Kong students (Savelyeva, 2018, 2022a, b; Savelyeva & Douglas, 2017) provided insights into the curriculum's merit and value by answering the following question: To what extent does the curriculum influence first-year university students' sustainability consciousness, specifically, their pro-environmental actions and involvement with local sustainability movement?

Research Design

A mix-method study was conducted in two consecutive stages: It started with two years of a pilot study and later continued with another two years of a main study. A pilot study was first conducted in the years 2014–2016 (n = 378) involving one public university students. Its focus was on the environmental aspects of the sustainability consciousness of Hong Kong first-year university students that resulted from the Liberal Studies curriculum. The pilot study delved into curricular structure and content, theories and practices of transformative learning for change, sustainability education as global practice, and the local institutional framework. The pilot study revealed consistently high sustainability attitudes and action-based participation of Hong Kong 17- to 18-year-old students, compared to their counterparts in other countries.

In order to fulfill the research goal of investigating the degree of Liberal Studies' influence on students' sustainability consciousness, the pilot study was expanded to include all public universities of Hong Kong. I used two forms of data collection: (a) questionnaires of 4,985 first-year university students, enrolled in the eight public tertiary Hong Kong institutions, and (b) 900 students' narrative reflections, written by the first-year university students enrolled in Liberal Studies courses at the eight public tertiary Hong Kong institutions. The credibility of the study was confirmed by verification procedures completed through triangulation of the student questionnaires and reflective narratives.

Research Findings

Two years of the pilot research and another two years of the main study produced a vast amount of quantitative and qualitative data (Savelyeva, 2018, 2022a, b; Savelyeva & Douglas, 2017; Li et al., 2017). The quantitative results suggested a significant increase in students' sustainability-related attitude, knowledge, and behavior due to their engagement with the Liberal Studies curriculum. At the same time, students reported their low participation in environmental groups and activities. In contrast, qualitative data revealed very high level of students' engagement with sustainability issues and unfolded three distinctive features of students' sustainability consciousness: (1) intentionality to make a difference; (2) engagement with the complex issues regarding identity, society, and nature; and (3) students' future-oriented outlook and sense of duty toward future generations, which I refer to as 'eschatological perspectives.' These findings suggested novel dimensions of sustainability consciousness and recommended use of holistic teaching methods for fostering students' imagination, creativity, and a sense of harmony and hope (Savelyeva, 2018).

Quantitative findings. Most students indicated that they generally knew more (Slightly More, More or Much More) about environmental issues as a result of the Liberal Studies subject that they took. These results support findings of previous research conducted by Robelia and Murphy (2012) on the factors influencing environmental behavior. This study suggested that knowledge is an important, but not a sufficient factor that impacts students' environmental behavior. In my study of sustainability consciousness, almost a quarter (25%) of the students reported that the curriculum made no change in their perceptions of biodiversity and ozone depletion (Savelyeva, 2018). This result pointed that the items of biodiversity and ozone depletion were not included in the examination (HKEAA, 2014) and were excluded from the lessons.

Although the questionnaire reported a significant increase in students' knowledge, attitude, and behavior due to the Liberal Studies curriculum, the results showed a low level of student activism and their participation in sustainability-related group activities. Only between 18.3% of the participants surveyed in 2016 and 23.6% of the participants surveyed in 2017 reported that they participated in the sustainability-related group activities during their years of studies (Savelyeva, 2018). The severe examination culture of the Hong Kong education system, known as an 'examination hell,' (Ishisada, 1974) might aid interpretation of this result. Students simply had no time for the sustainability-related group activities under the academic pressures. Considering that students undergo 'examination hell' to meet the demands of the Hong Kong education system, the 18.3% and 23.6% findings were rather surprisingly high.

Qualitative findings. Contrary to the quantitative results, qualitative data provided a clearer proof of students' high sustainability-related participation and activism mindset that indicated their strong sustainability consciousness. The vast amount of data generated by qualitative inquiry on students' sustainability mindset revealed three important features of students' sustainability consciousness: (1) intention to make a difference; (2) engagement with the complex issues regarding identity, society, and nature; and (3) students' eschatological perspectives. These representative thematic areas emerged from the analysis of students' descriptive narratives. The aforementioned three dimensions described the following Liberal Studies' influences on student' sustainability mindset: Liberal Studies ignites intentionality to make a difference; fosters engagement with complex questions about identity, society, and nature; and evokes eschatological perspectives, making students think beyond their own lifetime.

Before connecting these findings with the 'optimization' of the educational policy, it is necessary to provide a brief yet important interpretation on the 'sustainability consciousness with nil participation' paradox.

Sustainability Consciousness with a Nil Participation

Although the study's quantitative survey results displayed 'low sustainability action' items, which suggested a low level of the participants' sustainability consciousness, the qualitative findings pointed toward an opposite direction. Based on the cognitive relevance of the analyzed clusters, the descriptive themes, obtained from students' reflective narratives, suggested a high level of students' sustainability consciousness. The qualitative findings unfolded four approaches that constituted metacognitive indicators of students' sustainability mindsets: (1) criticality, (2) imagination, (3) reflexivity, and (4) eschatology. In this chapter, I refer to this discrepancy between quantitative and qualitative findings as a sustainability consciousness with a nil participation paradox (Savelyeva, 2018). I argue that the paradox supports culturally sensitive holistic models of education and reflects a complex relationship between the underlying philosophies and educational mechanisms, which are involved in fostering students' sustainability consciousness.

A holistic construct of sustainability consciousness highlights the centrality of human values, beliefs, goals, and responsibility for building own sustainable realities. On the contrary, a behavioral construct of sustainability-related 'knowledge-to-action' gap (Maiteny, 2002; O'Donoghue & Lotz-Sisitka, 2002) numerically illustrates a correlational rift between what students know about sustainability and whether or not they act on their knowledge. The local educational system, imbedded into the ideals of the Confucian heritage culture (CHC) (Li, 2009), reinforces a specific set of values, which "act as guardians of national character and inculcate a common set of moral sentiments" (Morris & Sweeting, 1991, p. 249). In this light, I argue that the quantitative 'high knowledge-low action' result is linked to cultural specifics of the local education system, famous for its severe examinations. Inclusion of the CHC feature in the result interpretation allows for a design of a culture-embedded framework (Liu et al., 2022; Savelyeva, 2016, 2022c; Savelyeva & Park, 2022; Savelyeva & Douglas, 2017; Savelyeva & Richards, 2017; Shepperd et al., 2009) that advances understanding of how students' values form their sustainability actions.

The 'sustainability consciousness with a nil participation' paradox demonstrates the gradual epistemological move from linear to holistic, culturally coherent research frameworks and models in the field of sustainability education research (Savelyeva, 2012a, 2012b, 2013; Savelyeva & McKenna, 2011). The results of the study reinforced Bateson's holistic framework of transformative learning (1973), which included the four stages (as interpreted by Sterling, 2003): (1) no change/ignorance; (2) accommodation/maintenance; (3) reformation/critical reflective adaptation; and (4) transformation/creative re-visioning. In this study, the qualitative findings showed that students exhibited all levels of Bateson's transformative learning in a non-consecutive manner, which indicated a nonlinear model of their knowledge acquisition. This finding viewed the Liberal Studies curriculum as holistic in its structure and processes, where learning about sustainability represents a trajectory across different levels of knowledge acquisition.

The four metacognitive indicators of students' sustainability consciousness—criticality, imagination, reflexivity, and eschatology—unveiled action- and future-oriented aspects of students' mindsets, filled with possibilities, hopes, and straggle for harmony. These results enrich decades of research on the 'knowledge-action' gap by featuring how students' social imaginary, their critical, reflective, and eschatological approaches to constructing their own future can ignite real-time activism and sustainable action.

Final Remarks and Conclusion

The present chapter's longitudinal analysis of the Liberal Studies curriculum clearly suggests that the curriculum did make a significant difference in the local society by nurturing the sustainability mindset of Hong Kong youth. The contribution made by the Liberal Studies curriculum for sustainability education for a decade (2009–2021) met an abrupt end when the many dimensions of sustainability were reduced to a single one, namely the political sustainability, under the *Civic and Social Development* in September 2021. This reduction can also be regarded as a regress in education aligned with the discourse of education as an ideological 'state apparatus' (Althusser, 2006). This phenomenon is in stark contrast to the general liberalization across Asian education systems in the name of knowledge ecology (Savelyeva et al., 2021), internalization, and globalization (Park, 2016).

From a perspective of sustainability education, the 2021 replacement of the liberal studies with the *Civic and Social Development* voided the original liberal education underlying philosophy. This, in turn, brought about drastic changes in educational mechanisms—what and how sustainability is taught and assessed. These alterations both underlying the educational philosophy and mechanisms weakened the well-established link between the secondary and tertiary levels. The continuity in fostering sustainability consciousness by means of the formal curriculum became no longer accessible. The *Civic and Social Development*'s reduced curricular modules with sole emphasis on national identity and security left no room for sustainability-related themes and topics. In addition, a replacement of students' independent study projects with 'study tours' to Mainland China could potentially deprive the young minds' ability to critically analyze and resolve local and global sustainability challenges. In addition, the new curriculum lacks structural means and pedagogical tools to unveil the perils of the contemporary sustainability situation and inspire students to generate sustainable solutions for environmental and social issues.

Regardless of the policy turns and changes, sustainability education shall continue to be taught in Hong Kong's formal Liberal Studies curriculum. The first pre-assumptions of this chapter—flexibility of sustainability education implementation—and the findings of this study provide grounds for a few possible scenarios for the secondary and tertiary levels. Firstly, it is feasible to strengthen the sustainability component of general education/common core courses in tertiary institutions. This could be done with a focus on the UN SDGs, considering the city's leading role as the SDSN regional headquarters and governmental commitment to their implementation. Including the UN SDGs into the *Interconnectedness and Interdependence of the Contemporary World,* module of the *Civic and Social Development* secondary curriculum will align secondary and tertiary curricula and maintain the broken continuity of sustainability education throughout educational levels. This will require a curricular design and distribution of the SDGs-related quality teaching materials among educators. Secondly, the continuity of the city's sustainability education can be maintained by organizing professional development sessions for educators, that will focus on methods of formative assessment. Using extensive formative methods and styles will allow educators to increase the quality of students learning, as well as link their practices with short and extended multiple-choice assessment, of which university entrance now requires. In this light, carefully designing secondary school students' homework that will require critical inquiries on local and global sustainability-related themes and topics will light up the already established curricular spirit of inquiry- and project-based learning. This will restore the connection between sustainability education and the underlying educational philosophy of upbringing a free-minded, responsible citizen (Maritain, 1943), which was a second pre-assumption of this chapter.

Flexible and resilient liberal and sustainability education have always had their share of underlying theories, goals, pedagogical tools, and practices that not only developed their respective fields, but also advanced the ideals and mechanisms of educational systems to its modern form. With Hong Kong sustainability education standing at the crossroads, there is an opportunity for bright new developments. Restoring the interrupted continuity of sustainability education throughout the secondary and tertiary levels, preserving quality of its educational ideals and mechanisms has now become an imperative in order to continue fostering the sustainability consciousness in Hong Kong students and beyond.

References

Althusser, L. (2006). Ideology and ideological state apparatuses (notes towards an investigation). In A. Sharma & A. Gupta (Eds.), *The anthropology of the state: A reader* (pp. 86–111). Blackwell.

Baldwin Cheng Research Centre for General Education (BCRCGE). (2011). *Origin*. Office of University General Education of The Chinese University of Hong Kong. https://www.oge.cuhk.edu.hk/index.php/en/about-us/origin

Bateson, G. (1973). *Steps to an ecology of mind collected essays in anthropology, psychiatry, evolution and epistemology*. Paladin.

Capra, F. (2003). *The hidden connections*. Flamingo.

Chiu, P. (2018, May 8). Leave liberal studies alone, teachers say. *South China Morning Post*. http://www.scmp.com/news/hong-kong/education/article/2145232/six-10-teachers-want-liberal-studies-remain-according-new

Chong, E. (2015). Global Citizenship Education of Hong Kong secondary school curriculum guidelines: From understanding responsibility to challenging injustice. *Asian Education and Development Studies, 4*(2), 221–247. https://doi.org/10.1108/AEDS-05-2014-0016

Court, D. (2004). The quest for meaning in educational research. *Academic Exchange Quarterly, 8*(3), 7. http://rapidintellect.com/AEQweb/cho27244j.htm

Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.

Education Bureau (EDB). (2015). *New senior secondary curriculum: Liberal studies parent's handbook*. https://ls.edb.hkedcity.net/en/about_RelatedPublications.php

Education Bureau (EDB). (2017). *2017 Policy Address—Education Bureau's Policy Initiatives for Legislative Council Panel on Education discussion* (LC Paper No. CB(4)19/17–18(01)). Education Bureau. https://www.edb.gov.hk/en/about-edb/legco/policy-address/2017_EDB_Panel_Paper_Eng.pdf

Education Bureau (EDB). (2021). *Optimising the four senior secondary core subjects to create space for students and cater for learner diversity: School questionnaire survey and school briefing* *sessions*. Education Bureau circular memorandum no. 20/2021. The Government of Hong Kong Special Administrative Region.

Education Bureau (EDB). (2022). *Government expenditure on education*. Education Bureau. https://www.edb.gov.hk/en/about-edb/publications-stat/figures/index.html

Education and Manpower Bureau (EMB). (2004). *Liberal Studies—It benefits you for life*. Education and Manpower Bureau. https://www.edb.gov.hk/attachment/en/curriculum-development/cs-curriculum-doc-report/about-cs-curriculum-doc-report/ls%20booklet%20eng.pdf

Education Bureau New Senior Secondary Section. (2013). *Liberal Studies—For students studying in S4 in the 2013/14 sy and taking the 2016 HKDSE Exam*. Online-hkedcity. http://334.edb.hkedcity.net/doc/eng/infoSheet/LS_S4_e.pdf

Farnham, N., & Yarmolinsky, A. (1996). *Rethinking liberal education*. Oxford University.

Fok, S. (1997). Political change in Hong Kong and its implications for civic education. *The Journal of Moral Education, 26*(1), 85–99.

Fung, D., & Liang, T. (2018). The legitimacy of curriculum development in post-colonial Hong Kong: Insights from the case of Liberal Studies. *Oxford Review of Education, 44*(2), 171–189. https://doi.org/10.1080/03054985.2017.1379382

Fung, D., & Lui, W. (2017). *Education policy analysis Liberal Studies and national education in Hong Kong*. Springer.

Fung, C., & Yip, W. (2013). *The comparative analysis of the teachers' and students' perceptions towards the implementation of liberal studies in the New Senior Secondary Curriculum in Hong Kong*. Unpublished research report. http://www.rss.hku.hk/rs2013/rpg_10000_gen.html

Hanvey, R. (2004). *Attainable global perspective*. American Forum for Global Education (Original work published in 1976).

Harris, P. (2012). *Environmental policy and sustainable development in China: Hong Kong in Global Context*. University of Chicago.

Hong Kong Examination and Assessment Authority (HKEAA). (2014). *Liberal Studies Assessment subject guide*. http://www.hkeaa.edu.hk/DocLibrary/HKDSE/Subject_Information/lib_st/2014hkdse-e-ls.pdf

Hui, S. (2018, June 19). Youths admit liberal studies do the trick. *The Standard*. http://www.thestandard.com.hk/section-news.php?id=196925

Ishisada, M. (1974). The civil examination: China's examination hell. *Chinese Education, 7*(1), 1–74.

Kimball, B. (1995). *Orators and philosophers: A history of the idea of liberal education*. The College Board.

Lam, C. (2020). *The Chief Executive's 2020 policy address*. The Hong Kong Special Administrative Region of the Peoples Republic of China. https://www.policyaddress.gov.hk/2020/eng/p152.html

Lee, W. (2004). Citizenship education in Hong Kong: Development and challenges. In W. Lee, D. Grossman, K. Kennedy, & G. Fairbrother (Eds.), *Citizenship education in Asia and the Pacific: Concepts and issues* (pp. 59–80). The University of Hong Kong.

Li, F., Savelyeva, T., & Douglas, W. (2017). *Sustainability consciousness of Hong Kong graduates: Phase I report*. The Education University of Hong Kong. https://www.eduhk.hk/LSPHK/view.php?secid=51111&u=u

Liang, M., & Cai, Q. (2006). An overview of the current situation of general education in Hong Kong universities. *Journal of General and Liberal Education, 1*, 63–90. https://www.oge.cuhk.edu.hk/index.php/en/publications/jgle/1st-issue

Lingard, B. (2013). *Politics, policies and pedagogies in education: The selected works of Bob Lingard*. Routledge.

Liu, J., Kitamura, Y., & Savelyeva, T. (2022). Building 'ecology' for transforming higher education teaching and learning for sustainability. *Asia Pacific Education Review*. http://doi.org/10.1007/s12564-022-09794-1.

Maiteny, P. (2002). Mind in the gap: Summary of research exploring 'inner' influences on pro-sustainability learning and behavior. *Environmental Education Research, 8*(3), 299–306. https://doi.org/10.1080/13504620220145447

Maritain, J. (1943). *Education at the crossroads*. Yale University.

Maritain, J. (1976). *The education of man: The educational philosophy of Jacques Maritain* (D. A. Gallagher & I. J. Gallagher, Eds.). Greenwood (Original work published in 1962).

Morris, P., & Chan, K. (1997). The Hong Kong school curriculum and the political transition: Politicization, contextualization and symbolic action. *Comparative Education, 33*(2), 247–264. https://doi.org/10.1080/03050069728550

Morris, P., & Sweeting, A. (1991). Education and politics: The case of Hong Kong from an historical perspective. *Oxford Review of Education, 17*(3), 249–267. https://doi.org/10.1080/0305498910170302

O'Donoghue, R., & Lotz-Sisitka, H. (2002). Some insights on the gap. *Environmental Education Research, 8*(3), 261–271. https://doi.org/10.1080/13504620220145410

O'Sullivan, E., & Taylor, M. (2004). *Learning toward an ecological consciousness: Selected transformative practices*. Palgrave Macmillan.

Oxford University. (2004). Optimisation. In J. Simpson & E. Weiner (Eds.), *The Oxford English dictionary* (2nd ed.). Clarendon Press.

Park, J. (2016). Asian education and Asia as method. In C. M. Lam & J. Park (Eds.), *Sociological and philosophical perspectives on education in the Asia-Pacific Region* (pp. 205–225). Springer.

Park, J., & Savelyeva, T. (2019). Critical examination of the Hong Kong Liberal Studies policy and curriculum [香港のリベラル・スタディーズの見直し政策とその批判的検]. *Research Journal of the Curriculum Center for Teachers, 18* [教員養成カリキュラム開発研究センター 研究年報』第18巻]. Tokyo Gakugei University. https://u-gakugei.repo.nii.ac.jp/?action=pages_view_main&active_action=repository_view_main_item_detail&item_id=35942&item_no=1&page_id=13&block_id=21

Park, J., & Savelyeva, T. (2022). An interpretive analysis of the 2030 sustainable development goals in Hong Kong public universities. *Asia Pacific Education Review*. http://doi.org/10.1007/s12564-022-09777-2.

Ran, R. (2020, May 21). Does general education teach young people badly? *BBC News*. https://www.bbc.com/zhongwen/trad/chinese-news-52734550

Robelia, B., & Murphy, T. (2012). What do people know about key environmental issues? A review of environmental knowledge surveys. *Environmental Education Research, 18*(3), 299–321. https://doi.org/10.1080/13504622.2011.618288

Sachs, J., McCord, G., Maennling, N., Smith, T., Fajans-Turner, V., & Loni, S. (2019). *SDG costing & financing for low-income developing countries*. Sustainable Development Solutions Network. United Nations.

Savelyeva, T. (2012a). Escaping the "structural trap" of sustainability in academia through Global Learning Environment. In K. Bartels & K. Parker (Eds.), *Teaching sustainability/teaching sustainably* (pp. 231–241). Stylus.

Savelyeva, T. (2012b). Connecting instructional and cognitive aspects of a LE: A study of the Global Seminar Project. *Learning Environment Research, 15*(1), 65–79. https://doi.org/10.1007/s10984-012-9099-1

Savelyeva, T. (2013). Toward a conceptual synthesis and ecological approach to case studies of curricular innovation implementation and university restructuring in Russian higher education. *International Journal of Higher Education, 2*(4), 228–237. https://doi.org/10.5430/ijhe.v2n4p228

Savelyeva, T. (2014). Implementation of Creative Education policy in Russian higher education curricula. *Creative Education, 5*(2), 86–92. https://doi.org/10.4236/ce.2014.52014

Savelyeva, T. (2016). Vernadsky meets Yulgok: A non-western dialog on sustainability. *Educational Philosophy and Theory*, *49*(5), 501–520. https://doi.org/10.1080/00131857.2016.1138851

Savelyeva, T. (2018). Stepping up the challenge: Fostering sustainability consciousness of Hong Kong students with New Senior Secondary Liberal Studies curriculum. In K. Kennedy & J. Lee (Eds.), *Routledge international handbook of schools and schooling in Asia* (pp. 740–756). Routledge. https://www.taylorfrancis.com/chapters/edit/10.4324/9781315694382-69/stepping-challenge-tamara-savelyeva

Savelyeva, T. (2020, December 15). *Sustainability consciousness: Culture of conscious consumption, renewable and sustainable generation.* Todos Sustentáveis: Encontros, mesas redondas e atividades inspiradasna agenda 2030 para os objetivos do desenvolvimento sustentável. Instituto Soul, Universidade Do Sul De Santa Catarina, Joiz De Fora, Brazil. https://www.youtube.com/watch?v=5IB3qm3hQVc&t=19s&ab_channel=InstitutoSoul

Savelyeva, T. (2022a). In times of uncertainty: Advancing university sustainability model in Hong Kong. In W. Leal (Ed.), *Handbook of sustainability science in the future.* Springer. https://doi.org/10.1007/978-3-030-68074-9_122-1

Savelyeva, T. (2022b). The influence of education and family systems on the sustainability values of Hong Kong university students. *Asia Pacific Education Review*. https://doi.org/10.1007/s12564-022-09786-1.

Savelyeva, T. (2022c). Conclusion—Towards a general framework of sustainable tertiary education. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 231–236). Springer. http://doi.org/10.1007/978-981-19-5104-6_14.

Savelyeva, T. (2022d). An introduction to the sustainability of tertiary education in Asia: Collaborations, transformations, global–local tensions, and future developments. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 1–9). Springer. http://doi.org/10.1007/978-981-19-5104-6_1.

Savelyeva, T., & Douglas, W. (2017). Global consciousness and pillars of sustainable development: A study on self-perceptions of the first-year university students. *International Journal of Sustainability in Higher Education, 18*(2), 218–241. https://doi.org/10.1108/IJSHE-04-2016-0063

Savelyeva, T., & McKenna, J. (2011). Campus sustainability: Emerging curricula models in higher education. *International Journal of Sustainability in Higher Education, 12*(1), 55–66. https://doi.org/10.1108/14676371111098302

Savelyeva, T., & Park, J. (2012). Ecologism and complexity of campus sustainability discourse. Sustainable development at universities: New horizons. In W. Leal (Ed.), *Environmental education, communication, and sustainability* (Vol. 34, pp. 183–192). Peter Lang.

Savelyeva, T., & Park, J. (2022). Blockchain technology and sustainable education. *The British Journal of Educational Technology, 53*(6), 1591–1604. https://doi.org/10.1111/bjet.13273.

Savelyeva, T., & Rickards, S. (2017). Education for sustainability in higher education: The Asia-Pacific region. Editorial to a Special issue on Sustainability Education in the Asia-Pacific region. *International Journal of Sustainability in Higher Education*, *18*(2), 166–170. https://doi.org/10.1108/IJSHE-10-2016-0193

Savelyeva, T., do Livramento, G., & de Andrade, J. (2021). New knowledge ecologies and politics of technological change. In M. Peters & R. Heraud (Eds.), *Encyclopedia of educational innovation.* Springer. https://doi.org/10.1007/978-981-13-2262-4_259-1

Shepherd, D., Kuskova, V., & Patzelt, H. (2009). Measuring the values that underlie seasonable development: The development of a valid scale. *Journal of Economic Psychology*, *30*(2), 246–256. https://doi.org/10.1016/j.joep.2008.08.003

Sterling, S. (2003). *Whole system thinking as a basis for paradigm shift.* www.bath.ac.uk/cree/sterling/sterlingthesis.pdf

Thomas, M. (Ed.). (1983). *Education and politics: Cases from eleven nations*. Pergamon.

The Government of the Hong Kong SAR (GovHK). (2014). *EDB's statement on review of Liberal Studies* [Press release]. https://www.info.gov.hk/gia/general/201410/26/P201410261030.htm

The Government of the Hong Kong SAR (GovHK). (2017). *Task Force on review of School Curriculum convenes first meeting* [Press release]. https://www.info.gov.hk/gia/general/201712/06/P2017120600608.htm

The Government of the Hong Kong SAR (GovHK). (2018). *LCQ4: The Liberal Studies subject under the senior secondary curriculum* [Press release]. https://www.info.gov.hk/gia/general/201812/05/P2018120500449.htm

The Government of the Hong Kong SAR (GovHK). (2022). *2022–23 budget*. https://www.budget.gov.hk/2022/eng/pdf/head156.pdf

United Nations Conference on Environment and Development (UN CED). (1992). *Agenda 21: Rio Declaration*. United Nations.

Wang, Y. (2020, December 4). *Talking about "chaos" and "true" in liberal studies*. Hong Kong Citizen News. https://www.hkcnews.com/article/

Wu, S., & Sorrell, D. (2022). Elite to mass to universal: The historical development, internationalization and sustainability of tertiary education in Hong Kong. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 89–107). Springer. http://doi.org/10.1007/978-981-19-5104-6_6.

Tamara Savelyeva is Associate Professor in Sustainable Education at the Hong Kong Institute of Education for Sustainable Development. She serves as a Program Director at the UNESCO Hong Kong Association; Senior Founding Fellow the World Institute of Sustainable Development Planners in Hong Kong SAR; and Editorial Board member of the International Journal of Sustainability in Higher Education. Dr. Savelyeva conducts educational research and projects in the areas of sustainability education development in different countries. Together with participants of the Rio+20 higher education meeting in Brazil, she has contributed to the educational framework for the 2012 Earth Summit. Her recent scholarly works include 2022 *In times of uncertainty: Advancing university sustainability model in Hong Kong*; 2021 *New knowledge ecologies and politics of technological change*; and 2019 *SDG3 Health and Wellbeing: Re-calibrating the SDG Agenda.*

Part III
Global—Local Tensions

Chapter 8
The Empowering Potential of Higher Education for Underprivileged Ethnic Minorities' Sustainable Development in Hong Kong: Educational Policies for Access and Equity

Fang Gao and Henry Chi Yin Liu

Introduction

The earliest settlement of South and Southeast Asians in Hong Kong can be traced back to two centuries ago, during the early times of British colonisation (1841–1997). The British authorities adopted a multinational recruitment policy and many Sikh and Muslim Indians, Nepalese Gurkhas (and later Pakistanis) were recruited to station in Hong Kong as policemen and prison guards, with the purpose of preventing large-scale social unrest in the society (Ho & Chu, 2012). Taking advantage of the political stability, Parsees and Bohra Muslim traders then also came and migrated to the territory for economic opportunities. Their contribution to the making of Hong Kong has become apparent in securing local safety and promoting import and export trade (Kwok & Narain, 2004). Even after the handover in 1997, many of their descendants remained to reside in Hong Kong in order to enjoy the prosperity and many cherish this place as their "home" (Leung, 2014).

The most recent census exercise conducted in 2016 indicated that these South and Southeast Asian ethnic minorities (hereafter EMs) constitute a total of 8.0% of Hong Kong's 7.34 million inhabitants, numbering 584,383 people (Census and Statistics Department, 2017). Excluding the foreign domestic helpers, the number of

The original version of this chapter was revised: The chapter author "Gao Fang's" incorrect family name has been updated from "Fang G." to "Gao F.". The correction to this chapter is available at https://doi.org/10.1007/978-981-19-5104-6_15

F. Gao (✉)
Department of International Education, The Education University of Hong Kong, Hong Kong, China
e-mail: fgao@eduhk.hk

H. C. Y. Liu
The University of Hong Kong, Hong Kong, China

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_8

EMs was 263,593 in 2016, making up 3.6% of the whole Hong Kong population, a large of whom are Indians, Nepalese, Pakistanis and Filipinos. Only in a decade, the number of EMs in Hong Kong rose by 70.8%; such tremendous increase represents the fastest-growing demographic group across the territory. Being a root for many EM families, a record-high of 14.0% of EMs were documented to born locally (Census and Statistics Department, 2017). The diversified demographic profile has facilitated the predominantly Chinese society to be a diverse, multi-ethnic/multilingual community.

Considering the low fertility rate in Hong Kong, the local government has committed to support and assist in meeting the diverse needs of the EM community. As the Chief Executive, Mrs. Carrie Lam mentioned, "Non-ethnic Chinese youth is, without a doubt, an asset to the dynamics of our society and a valuable pool of human resources to contribute to Hong Kong with its array of talents, language proficiencies, skillsets and network" (The Zubin Foundation, 2018). For example, under the 2018/2019 budget policy, an allocation of HKD$500 million has been earmarked to support initiatives for EMs in education, employment, social welfare and social integration (Hong Kong SAR Government, 2019).

Yet, though ambitious efforts have been set out for EMs, in reality, EM students remain the least represented demographic group in local higher education topography. The post-secondary (diploma, certificate, sub-degree and degree courses) attendance rate of aged 18–24 minority youths was only 43.3% in 2016, falling the overall population by 9.3% (43.3–52.6%), and that the gap had widened over the previous decade (36.1–44.7% in 2006). The first-year first-degree ("FYFD") places funded by University Grants Committee (UGC) have remained unchanged at 15,000 over the years. The number of local non-Chinese speaking EM students (students whose ethnicity and/or spoken language at home is not Chinese–Cantonese and traditional written Chinese) who had met the general entrance requirements of undergraduate programmes and were admitted to the funded programme in the consecutive 2014/2015, 2015/2016, 2016/2017, 2017/2018 and 2018/2019 academic years is only 104, 100, 125, 153 and 157, respectively (Education Bureau, 2019). Groups, including Indonesians, Thais, Nepalese and Pakistanis, were found to have the lowest proportions of higher education graduation in the population (Census and Statistics Department, 2017). EMs' unemployment rate is dramatically high, and in turn, poverty becomes inter-generational.

In the context of Hong Kong, a bachelor's degree has supposed to be a ticket to gainful employment; local statistics reveal that university graduates, on average, earned 107% more than high school graduates (Census and Statistics Department, 2018). Notably, close to one in five (19.4%) EM individuals live under the poverty line. The low accessibility of higher education would fail to deliver empowerment to EMs, and eventually perpetuate poverty, and lock them into the lower socioeconomic strata (Hong Kong SAR Government, 2018). Under the United Nation's Sustainable Development Goals (SDGs), higher education is positioned as a key target in the development agenda. With an emphasis on non-discrimination in access, and promoting the participation of disadvantaged groups, higher education institutions are considered instrumental in driving all of the goals of sustainable development. Apparently, the low participation of EM students in higher education reflects the ethnic and class stratification and inequality in Hong Kong's social structure, and in turn, gives rise to the unsustainability of societal development. Hence, equal access to university is one of the key sustainable development issues that motivates and empowers people living in poverty to acquire upward mobility and to shape a sustainable life (Balitskaya & Jain, 2022).

Local studies on university choice and access (i.e. Gao, 2017; Wu, 2010) have suggested that underprivileged EM youths are comparatively more vulnerable to handling school-to-university transition, due to the insufficient social, cultural and economic capital, as compared to the privileged groups. Empirical evidence (e.g. Gao, 2018; Perna & Titus, 2005) suggests that even though minority parents can provide emotional support and encouragement through positive attitudes towards university/college, they are often unable to give direct guidance in plans or processes for application. For these minority youths, therefore, government policies and practices are one dominant extra-familial support measure that, in principle, gives them access to necessary information and resources that help them navigate the university (Stanton-Salazar, 2011). However, two basic questions arise: What are the current policies that attempt to proliferate EMs' enrolment in university in Hong Kong? And how effective are the policies for facilitating EM students' transition to university?

To address the above questions, the current study deploys the Bourdieusian conception of capital and critically evaluates the effectiveness of government support measures for the marginalised members of the minority community to access university. EM students in this study are defined as a mix of local students from different backgrounds, mainly South/Southeast Asians, who: (1) speak a primary language other than Chinese (Cantonese) at home, and (2) comprise the majority of non-Western EMs in the public education sector. While increasingly scholars' attention has been paid to EMs' education (i.e. Kapai, 2015; Loper, 2004), few studies account for and evaluate educational policies that condition their access to university in Hong Kong. The review of policy documents could potentially account for landmark legal mandates that might influence EM students' university participation. In particular, this study examined historically noteworthy progressive steps towards access and equity juxtaposed with recent indicators of policy development to illustrate a comprehensive picture of tailor-made education services to the EM population. The chapter concludes by suggesting policies that could better ensure that EMs receive equitable treatment in accessing university.

Literature Review

The existing literature on university choice and access has mainly utilised Bourdieu's capital theory and illustrated the interactive effects of multiple types of capital on youth's pathways to university (e.g. González et al., 2003; Kanno & Varghese, 2010;

Pérez & McDonough, 2008; Perna & Titus, 2005). The researchers have integrated the economic model of human capital investment and the socio-cultural framework and proposed a theoretical model in which eventual enrolment in university can be associated with an evaluation of family income (economic capital) as well as the influences of cultural value of higher education attainment (cultural capital) and information about university/college obtained through valuable social relationships/networks (social capital). Bourdieu's interpretation has also suggested that different types of capital are inversely related to socioeconomic status. Being unequal in possessing and activating their resources, those youths coming from privileged backgrounds are able to take advantage of resource-rich networks in the competition for scarce resources, whereas working groups and ethnic minorities with insufficient capital resources will be sidelined in the struggle for educational advancement. The inherent inequalities predispose individuals in differentially advantaged locations in social space in the competition for the occupation of available scarce resources.

According to Bourdieu (1997), cultural capital is comprised of cultural knowledge, language competence, dispositions and educational qualifications that are highly valued in a particular social milieu. As a subset of cultural capital, linguistic capital symbolises "the underlying social, economic and political struggles" (Tollefson, 2002: 5) occurring in a polity. In most cases, the language of the dominant group defines the linguistic habitus embodied in the educational system, thereby preventing other languages from gaining legitimacy. Applied linguists (e.g. Tse et al., 2011) argued that the acquisition of the Chinese language plays a significant role in EM students' retention and success in education. However, given that school often privileges the cultural/linguistic background of students of the dominant class, EM students are distinctively disadvantaged, compared with their native-speaking counterparts (Gao et al., 2011). To understand how EM students could overcome language barriers, an analysis on the extent and effectiveness of current policy provision is crucial.

In addition, economic capital is defined as a person's access to economic resources (e.g. income, wealth, assets) (Bourdieu & Passeron, 1990), and its provision is a robust predictor of under-represented students' university application, selection, admission and retention in university (Nuñez & Sparks, 2012). In Hong Kong, the 2016 Population Census noted that non-Chinese EMs generally had smaller proportions in the highest income group and higher proportions in the lowest income group population (Census and Statistics Department, 2017). The design of government's policy to enhance EMs' access to economic resources (e.g. financial aid) for the sake of increased enrolment in university can be an indicator for its effectiveness.

Inequalities in university access may also arise from a lack of social capital. Bourdieu (1997) defines social capital as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition" (248). That is, persons may draw on resources that accrue to them by virtue of social ties for educational success (Coleman, 1988). Empirical evidence (e.g. Kanno & Grosik, 2012) illustrates that the odds of enroling in a four-year university undergraduate degree course increase with the adequacy of information about higher education accessible to disadvantaged students at the senior secondary stage. Extant research emphasises the importance of developing ties with institutional agents in gaining important resources (Lin, 2001).

Under Bourdieu's conceptualisation, one type of capital exists in conjunction with other types of capital and so shapes "intersecting multiple capitals" (Horne et al., 2011). To evaluate the effectiveness of policy instruments that facilitate university access among EMs in Hong Kong, the study takes educational policies as provisions of multidimensional capital resources to investigate to what extent the multidimensional capital provision in educational policy and practice works together and improves EMs' likelihood of enroling in universities. The multiple capital framework is also linked to explicit consideration of power relations, structural inequalities and social reproduction, and the distribution of various types of capital represents the inherent structure of a society. An understanding of current policy mechanisms as identifiable types of capital will help elucidate the structural constraints unique to EMs in the Hong Kong society.

Findings

Three major policy initiatives that strive for the widening of university enrolment among EMs arise from data analysis, including (1) alternative Chinese language qualifications in university entrance examinations and flexible language admission requirements, (2) a Chinese language examination subsidy and examination fee remission scheme and (3) information channels on the university application process accessible to EM parents and students.

Cultural/Linguistic Capital-Relevant Policy Initiatives

Existing local literature (i.e. Ku et al., 2005; Loper, 2004) emphasises that the Chinese language is the most significant cause of school failures of EM students in Hong Kong. For many EM students of South Asian or Southeast Asian ethnicity, English is at best their second language, and Chinese is learned as their third language. Most of them have not encountered any Chinese language before kindergarten or even later (EOC, 2019). In order to enter the funded Joint University Programmes Admissions System (JUPAS)-participation institutions' programmes, a minimum requirement of a Level 3 Chinese language proficiency in Hong Kong Diploma of Secondary Education Examination (HKDSE) has been made compulsory, while 5** being the highest level in a 7-point scale. As dubbed as "the paper of death", indeed, only 58.1% candidates attained such qualifications or above territory-wide in 2019 (HKEAA, 2019). The challenging Chinese curriculum discouraged EM students from taking such an examination, which requires a native-level command of Chinese and a high level of knowledge of Chinese language and culture (Gao, 2011). Statistics reflect that the number of EM students opting for the HKDSE (Chinese

Language) is still very small (7.7% of EM S6 students in the 2017–2018 school year) (Education Bureau, 2019). In 2018, among the 103 EM students sat for the HKDSE, only 14 of them attained the minimum requirement. Therefore, schools are often expected to persuade EM students early in their secondary schooling to take simpler non-local Chinese language examinations, including the General Certificate of Secondary Education (GCSE), General Certificate of Education Advanced Subsidiary and Advanced Levels (GCE AS and AL) and International General Certificate of Secondary Education (IGCSE) (EOC, 2019). Since 2007, EM students who meet either of the following specified circumstances were allowed to take these exams: (1) the student has learned the Chinese language for less than six years while receiving primary and secondary education, or (2) the student has learned Chinese language for six years or more in schools, but has been taught an adapted and simpler curriculum not normally applicable to the majority of students in local schools (HKEAA, 2020).

Yet, universities in Hong Kong are granted to exercise institutional autonomy at their discretion in considering whether the qualifications suffice for admission with a result that the alternative Chinese examinations are not often fully recognised by the academic institutions. Each university administers its own admission policy and criteria for different undergraduate programmes to assess applications submitted through the JUPAS and non-JUPAS routes (Education Bureau, 2019). Neither the Government nor the UGC would require universities to specify a particular ratio of local students admitted through the JUPAS and non-JUPAS routes. Under such practices, different institutions adopt a different approach to perceiving the alternative Chinese examinations (Hong Kong Unison, 2020a). For instance, in the academic year of 2019/2020, out of the 9 JUPAS-participation institutions, only one has offered to adopt a conversion for alternative Chinese qualifications, in which students would have a chance to be conversed to Level 5** (the highest) in score. Unfortunately, the remaining institutions insisted on transferring the qualifications to only Level 3 of HKDSE Chinese Language, the basic entrance requirement. Some institutions even warned that alternative Chinese result would not be taken into consideration in terms of admission. Consequently, EM students must struggle for better performance in other HKDSE subjects if they are to boost their admissions chances in the institutions. Such an absence of a consistent qualification of Chinese proficiency does not help equalise EM students' university access.

Sarcastically, in order to promote higher education internationalisation and the development of Hong Kong as a regional education hub, the local government has increased the non-local student quota for publicly funded programmes from 10 to 20% (Education Bureau, 2007). And recruitment of international students undergoes a merit-based selection, in which a Chinese language proficiency is not required. This recruitment exercise places EM students in a more unfavourable environment, in which Chinese language barriers have not yet received proper policy interventions.

Economic Capital-Relevant Policy Initiatives

In supporting EM students to obtain alternative language qualifications and facilitate their academic and career advancement, the government has subsidised eligible school candidates (Secondary 4 to Secondary 6) to sit for GCSE Chinese examination since 2010, irrespective of means. Students would only be required to pay a "subsidised examination fee" on par with that of the Chinese Language paper in the HKDSE. Subject to an annual review, in the 2019/2020 academic year, the GCSE Chinese examination fee is HK$1,720, while that of HKDSE is HK$670. The Education Bureau will top up the difference in fees between the examinations to the same level (HKEAA, 2020). From the 2012/2013 school year onwards, the examination subsidy coverage has further extended to the IGCSE (HK$3,075 charged by Edexcel, London and HK$1,575 charged by Cambridge International Examinations in 2020), GCE AS-Level (HK$3,850 charged by Edexcel, London and HK$1,720 charged by Cambridge International Examinations in 2020), and GCE A-Level (Chinese) Examinations (HK$5,805 charged by Edexcel, London and HK$2,605 charged by Cambridge International Examinations in 2020). Furthermore, multi-entries into the overseas Chinese language examinations are made applicable to EM students. The policy stipulates that the subsidised examination fee is applied to up to two entries for any of the three examinations under GCSE, IGCSE and GCE AS-Level, and up to two entries for the GCE A-Level Chinese examination. The offerings of multi-entries allow EM students not only to secure a certification at an elementary level but to learn Chinese at a more advanced level (GCE A-Level) (Education Bureau, 2012).

Since 2011, eligible EM students, who pass the means test of the Student Financial Assistance Agency (SFAA) and sit for the alternate Chinese examinations, can apply for full or half fee remission of the "subsidised examination fee" under the Examination Fee Remission Scheme (EFRS). On average, around 1,600 EM students benefited from the EFRS annually (Education Bureau, 2019). The approval of the relief measure in the 2019/2020 Budget even waived the "subsidised examination fee" of school candidates accordingly. In the 2018/2019 school year, estimated expenditure on subsidising EM students to sit for the above internationally recognised alternate Chinese Language qualifications examinations is over HK$4.24 million (Education Bureau, 2019).

Whilst the EFRS can benefit EM students in waiving the thousand-dollars examination fee, the more significant challenge in paying for university fees is unsettled. Among the nine UGC-funded institutions, all the bachelor's degree programmes charged a fee of HK$42,100 in the academic year 2020/2021 (UGC, 2020), whereas the median monthly income of South Asians is around HK$15,000—a threefold tuition fee for EM families would have aggravated their burden on the already-tighten budget, not including the indirect university costs (e.g. union fees, textbooks, devices for learning). As such, economically impoverished EM students would be potentially deterred from applying. Nepalese, who could only earn the least (HK$12,600) among the South Asian groups, can help explain the least university attendance rate of young

EMs and a high tendency to quit school early and join the workforce (Hong Kong SAR Government, 2018).

University-bound EM students often have to resort to the scholarships or subsidies to support their expenditure, if they are luckily admitted. Across the territory, the only available scholarship targeted explicitly at EM students is the Hong Kong Unison Scholarship. The one-off provision of HK$15,000 for the first year of study, with limited recipients, is expected to alleviate the pressing financial needs (Hong Kong Unison, 2020b). Another accessible financial aid to support all students is the Tertiary Student Finance Scheme (TSFS). TSFS is composed of two forms: grants and loans. The level of assistance will be fully determined by a two-tier means test involving family income and assets. The maximum grant for a student covers tuition fees, academic expenses and compulsory union fees. The maximum loan is for living expenses and is interest-bearing at 1.0% per annum chargeable from the commencement of the repayment period (a maximum of 15 years) (Student Finance Office, 2020). No doubt, accessing economic capital via the TSFS is vital for those EMs to successfully enrol at university. However, TSFS is not uniquely designed for EM students, yearly application to the scheme may cause uncertainty and anxiety among the EM youths (Gao, 2017).

Social Capital-Relevant Policy Initiatives

Due to criticism of EM-dominated designated schools segregating EM students from society, Hong Kong disbanded this type of schooling in 2013 and encouraged EM students to choose mainstream schools. EM parents often have to struggle between the lack of support received by students when taking the mainstream Chinese language curriculum and the pessimistic consequence on further studies and employment with the alternative Chinese qualifications (EOC, 2019). The result is that most of EM students actually still go to a limited number of designated schools (Gao & Lai, 2018). Government statistics show that 40% of EM primary students and 36% EM secondary students studied at schools with a high concentration of EM student population (70% or more) in the 2016/2017 school year (Education Bureau, 2019).

In the EMs-dominated schools, EM families often lack social networks necessary for accessing valuable information resources that their children may draw on as needed for success in university enrolment. According to Hong Kong Council of Social Services' (2010) survey, almost a quarter of the surveyed EM parents (23.5%) did not know Chinese proficiency, which might significantly affect their chances of getting access to university-relevant information and sources. In addition, the Chinese-conducted parent–teacher association meetings and the distribution of solely Chinese notices in secondary schools also barred EM parents from participating meaningfully and understanding fully pertaining to the performance of their children and the university choice process (EOC, 2019). The institutional barriers are further exacerbated by the lack of confidence among local teachers on EM students who are always stereotyped as academically demotivated and linguistically/culturally deficit (Gao et al., 2019).

The Education Bureau responded by setting up an information platform on its official website, namely "Education services for non-Chinese speaking (NCS) students". With the provision of over seven languages in the core documents (e.g. Brief on Education Support Measures, Parent Information Package on Education in Hong Kong), the platform is expected to provide EM families with essential information and related resources. Moreover, Education Bureau has initiated a hotline for EM students and their parents, and if necessary, interpretation services are available through the Centre for Harmony and Enhancement of Ethnic Minority Residents. Rather, the information regarding higher education is predominantly in Chinese and English so that its accessibility for EMs who are not versed in either language may be compromised. Additionally, most of the information resources are only available online, EM parents who lack technological skills or regular access to Internet may not be able to access the requisite information regarding universities, admissions policies and other information to make an informed decision about which university their children can choose to apply for. An Oxfam study echoes with the finding that only 30.5% of EM parents knew that they could access information materials from Education Bureau websites and offices (Oxfam, 2014).

Discussion and Conclusion

By analysing the government's support policies and practices for under-represented EM students, this study demonstrated what tangible progress had been made in increasing the students' participation in higher education and what limitations had been exposed in addressing EM students' insufficiency of linguistic, economic and social capital. We found that the existing initiations of educational policy are exclusively focused on EMs' limited Chinese proficiency in their pathways to the university. In doing so, the under-representation of EM students in local universities is relegated to the lack of linguistic capital and leaves the non-linguistic obstacles and barriers less touched. The overemphasis on EMs' Chinese language skills appears to privilege Chinese native speakers' status and exercise "symbolic violence" (Bourdieu & Wacquant, 1992) on EMs. The documentary analysis confirms key limitations of current attempts to address EMs' limited social and economic capital that together restrict the students' access to university. While the financial stresses and inability in shaping valuable networks and relationships with important institutional agents have not yet been resolved by current policies, the Chinese language still conditioned EMs' university access and programme choice. Ricky Chu, the chairperson of Equal Opportunities Commission commented, "It is not about how much hard work ethnic minority students put in; it is about how the system places them at a disadvantage by default" (Chu, 2019). The limited response to EMs' university-going aspirations on the sole focus of linguistic capital, with negligence in other aspects, have shackled EM students on the access of higher education.

The findings of this study suggest that a consideration of various types of capital resources operating in EMs' pathways to university and subsequently a holistic policy framework is of paramount importance in policy initiation if we expect to broaden university access to the minority student population and enable their sustainable development in Hong Kong. Firstly, such an approach needs to recognise Chinese as a second/foreign language by all societal institutions. This recognition would address the unequal division of power produced or maintained by the current educational language policy. Secondly, educational policy in a holistic mode should draw attention to the sorts of financial and information resource investments from which EM students and parents are most likely to need assistance in order to ensure greater higher education opportunities. Homeschool collaboration should be strengthened to cultivate a facilitative communication model, allowing EM parents to be involved in students' university choice process. Finally, holistic measures have to embrace and train school teachers, administrators and counsellors to recognise the inequalities encountered by EM students, including inequalities in cultural/linguistic, social and economic capital, and to become agents in valuing these students' strengths and improving their educational aspirations and outcomes.

This investigation indicates that Hong Kong has a long way to go in addressing underprivileged EM students' disadvantages in accessing university. Serious actions need to be taken at the government level to increase the number of EM university students and to boost the human capital, and to achieve the ends towards economic growth, social cohesion and democracy in a sustainably developed society.

References

Balitskaya, I., & Jain, N. (2022). Transforming tertiary education environments for sustainable development of the Sakhalin region in Russia. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 143–162). Springer. http://doi.org/10.1007/978-981-19-5104-6_9.

Bourdieu, P. (1997). The forms of capital. In A. Halsey, H. Lauder, P. Brown, & A. S. Wells (Eds.), *Education: Culture, economy, and society* (pp. 241–258). Oxford University Press.

Bourdieu, P., & Passeron, J. C. (1990). *Reproduction in education, society and culture* (2nd ed.). Sage.

Bourdieu, P., & Wacquant, L. J. D. (1992). *An invitation to reflexive sociology*. University of Chicago Press.

Census and Statistics Department. (2017). *Hong Kong 2016 population by-census thematic report: Ethnic minorities*. Retrieved June 9, 2020, from https://www.bycensus2016.gov.hk/data/16bc-ethnic-minorities.pdf

Census and Statistics Department. (2018). *Hong Kong 2016 Population by-census thematic report: Youth*. Retrieved June 9, 2020, from https://www.bycensus2016.gov.hk/data/16BC_Youth_report_2018.02.12.pdf

Chu, R. (2019). Hong Kong's education gap hurts ethnic minorities as much as society at large. Hong Kong Free Press, [online] 8 October. Retrieved June 9, 2020, from https://hongkongfp.com/2019/10/08/hong-kongs-education-gap-hurts-ethnic-minorities-much-society-large/

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*, 95–120.

Education Bureau of the Hong Kong SAR (Education Bureau). (2007). *Education Bureau circular No.* 1/9/2041/93, developing Hong Kong as a regional education hub. Retrieved June 9, 2020, from https://www.edb.gov.hk/attachment/en/about-edb/press/legco/others/legco%20brief-e.pdf

Education Bureau of the Hong Kong SAR (Education Bureau). (2012). *Education bureau circular No. 19/2012, education support for non-Chinese speaking students: Expanded examination subsidy*. Retrieved June 9, 2020, from http://applications.edb.gov.hk/circular/upload/EDBC/EDBC12019E.pdf

Education Bureau of the Hong Kong SAR (Education Bureau). (2019). *Replies to initial written questions raised by finance committee members in examining the estimates of expenditure 2019–20*. Retrieved June 9, 2020, from https://www.edb.gov.hk/attachment/en/about-edb/press/legco/replies-to-fc/19-20-edb-e.pdf

Equal Opportunities Commission (EOC). (2019). *Closing the gap: Report on the working group on education for ethnic minorities*. Retrieved June 9, 2020, from https://www.eoc.org.hk/EOC/upload/ResearchReport/Closing_the_Gap_Full_Report.pdf

Gao, F. (2011). Linguistic capital continuity and change in educational language policies for South Asians in Hong Kong primary schools. *Current Issues in Language Planning, 12*(2), 251–263.

Gao, F. (2017). Capital multiplicity and convertibility: Language minorities' multidimensional challenges to accessing postsecondary education in Hong Kong. *British Journal of Sociology of Education, 38*(8), 1165–1176.

Gao, F. (2018). Do heterophilous networks work? Investigating school-based social capital and the university choice process among less-privileged ethnic minorities in Hong Kong. *Race Ethnicity and Education, 21*(6), 827–842.

Gao, F., & Lai, C. (2018). Biculturalism and segregated schooling in Hong Kong. *Journal of Multilingual and Multicultural Development, 39*(4), 301–312.

Gao, F., Lai, C., & Halse, C. (2019). Belonging beyond the deficit label: The experiences of 'non-Chinese speaking' minority students in Hong Kong. *Journal of Multilingual and Multicultural Development, 40*(3), 186–197.

Gao, F., Park, J., Ki, W. W., & Tsung, L. (2011). Teaching Chinese as a second language in China: The cases of South Asians and ethnic Koreans. *Linguistics and the Human Sciences, 4*(3), 265–288.

González, K. P., Stoner, C., & Jovel, J. E. (2003). Examining the role of social capital in access to college for Latinas: Toward a college opportunity framework. *Journal of Hispanic Higher Education, 2*(2), 146–170.

Ho, L. K. K., & Chu, Y. K. (2012). *Policing Hong Kong 1842–1969: Insiders' stories*. City University of Hong Kong Press.

Hong Kong Council of Social Service. (2010). *Parent involvement for children's educational advancement: A comparison between the Chinese and the ethnic minority parents in Hong Kong*. Retrieved June 9, 2020, from http://webcontent.hkcss.org.hk/pra/research_report/EMreport.pdf

Hong Kong Examination Assessment Authority (HKEAA). (2019). *2019 HKDSE Analysis of results of candidates in each subject*. Retrieved June 9, 2020, from http://www.hkeaa.edu.hk/DocLibrary/HKDSE/Exam_Report/Examination_Statistics/dseexamstat19_5.pdf

Hong Kong Examination Assessment Authority (HKEAA). (2020). *Pearson Edexcel/Cambridge Assessment International Education GCE/IGCSE/GCSE (Chinese)—May/June 2020 notes for school candidates entering for Chinese Examinations*. Retrieved June 9, 2020, from http://www.hkeaa.edu.hk/DocLibrary/ipe/gcse/Note_for_Chinese_Exam.pdf

Hong Kong SAR Government. (2018). *Hong Kong Poverty Situation: Report on ethnic minorities 2016*. Retrieved June 9, 2020, from https://www.povertyrelief.gov.hk/pdf/Hong%20Kong%20Poverty%20Situation%20Report%20on%20Ethnic%20Minorities%202016.pdf

Hong Kong SAR Government. (2019). *More support for ethnic minorities*. Retrieved June 9, 2020, from https://www.news.gov.hk/eng/2019/10/20191027/20191027_093632_116.html?type=ticker

Hong Kong Unison. (2020a). *Resource Kit for 2020a DSE students*. Retrieved June 9, 2020, from https://drive.google.com/drive/folders/10wJM20mw9CmKQww7QjzYtV4ilaOktw_Q

Hong Kong Unison. (2020b). *Tertiary Education Scholarship for Ethnic Minority Students*. Retrieved June 9, 2020b, from http://www.unison.org.hk/Tertiary-education-scholarship.php

Horne, J., Lingard, B., Weiner, G., & Forbes, J. (2011). 'Capitalizing on sport': Sport, physical education and multiple capitals in Scottish independent schools. *British Journal of Sociology of Education, 32*(6), 861–879.

Kanno, Y., & Grosik, S. A. (2012). Immigrant English learners' transitions to university: Student challenges and instructional policies. In Y. Kanno & L. Harklau (Eds.), *Linguistic minority students go to college: Preparation, access, and persistence* (pp. 130–147). Routledge.

Kanno, Y., & Varghese, M. M. (2010). Immigrant and refugee ESL students' challenges to accessing four-year college education: from language policy to educational policy. *Journal of Language, Identity, and Education, 9*, 310–328.

Kapai, P. (2015). *Status of ethnic minorities in Hong Kong 1997–2014. The University of Hong Kong*. Retrieved June 9, 2020, from https://tbinternet.ohchr.org/Treaties/CERD/Shared%20Documents/HKG/INT_CERD_NGO_CHN_31912_E.pdf

Ku, H. B., Chan, K. W., & Sandhu, K. K. (2005). *A research report on the education of South Asian ethnic minority groups in Hong Kong*. Centre for Social Policy Studies, Department of Applied Social Sciences, The Hong Kong Polytechnic University.

Kwok, S. T., & Narain, K. (2004). *Co-prosperity in cross-culturalism: Indians in Hong Kong*. The Commercial Press.

Leung, C. Y. (2014). *The 2014 policy address: Support the needy, let youth flourish, unleashing Hong Kong's potential*. HKSAR Government.

Lin, N. (2001). *Social capital: A theory of social structure and action*. Cambridge University Press.

Loper, K. A. (2004). *Race and equality: A study of ethnic minorities in Hong Kong's education system*. The University of Hong Kong.

Nuñez, A. M., & Sparks, P. J. (2012). Who are linguistic minority students in higher education? An analysis of the beginning postsecondary students study 2004. In Y. Kanno & L. Harklau (Eds.), *Linguistic minority students go to college: Preparation, access, and persistence* (pp. 110–129). Routledge.

Oxfam. (2014). *Survey on the Chinese learning challenges South Asian ethnic minority kindergarten students from low-income families face executive summary*. Retrieved June 9, 2020, from https://www.oxfam.org.hk/en/f/news_and_publication/1410/content_20711en.pdf

Pérez, P. A., & McDonough, P. M. (2008). Understanding Latina and Latino college choice: A social capital and chain migration. *Analysis Journal of Hispanic Higher Education, 7*(3), 249–265.

Perna, L. W., & Titus, M. A. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *The Journal of Higher Education, 76*(5), 485–518.

Stanton-Salazar, R. D. (2011). A social capital framework for the study of institutional agents and their role in the empowerment of low-status students and youth. *Youth & Society, 43*(3), 1066–1109.

Student Finance Office. (2020). *Tertiary student finance scheme—Publicly-funded Programmes (TSFS)*. Retrieved June 9, 2020, from https://www.wfsfaa.gov.hk/sfo/en/postsecondary/tsfs/overview.htm

The Zubin Foundation. (2018). *Ethnic Minority Youth see themselves as Hong Kongers, yet 43% don't want to live here in 10 years' time*. Retrieved June 9, 2020, from https://www.hku.hk/press/news_detail_18430.html

Tollefson, J. W. (2002). Introduction: Critical issues in educational language policy. In J. W. Tollefson (Ed.), *Language policies in education: Critical issues* (pp. 3–16). Lawrence Erlbaum Associates.

Tse, S. K., Ki, W. W., & Shum, S. K. (2011). *Learning and teaching Chinese to non-Chinese speaking students: Curriculum, textbook, pedagogy and assessment*. Hong Kong University Press.

University Grant Committee (UGC). (2020). *What are UGC-funded RPg programmes? Do they include part-time programmes?* Retrieved June 9, 2020, from https://www.ugc.edu.hk/eng/rgc/funding_opport/tws/faq/q2.html

Wu, X. (2010). *Hong Kong's post-80s generation; Profiles and predicaments*. Central Policy Unit of the HKSAR.

Gao Fang is an Associate Professor in the Department of International Education at the Education University of Hong Kong. She specialises in the sociology of education with an emphasis on Education, Equity, and Diversity. She examines educational policies and processes of teaching and learning in local and global contexts and in relation to demographic, linguistic, and cultural diversity. Her priority has been to engage in interdisciplinary and empowering studies through critical and multicultural lenses with education agenda that not only identifies racial/ethnic/language minority students' educational vulnerability, but also analyses educational policy and practice provision that contributes to the overcoming of those inequalities and educational and social change.

Henry Chi-Yin Liu is Hong Kong-born and bred. He holds a Bachelor of Education (Honours) (English Language) with first-class honours from the Education University of Hong Kong. As an in-service teacher, he hopes to motivate students to ascertain their inner strengths and discover what truly inspires them. His spirit in developing cutting-edge pedagogy has earned him 'Distinction' in his teaching practicum. He is also the recipient of the Scholarship for Prospective English Teachers and the Seventh Hong Kong Outstanding Prospective Teachers Award. During his university years, he volunteered in UNICEF Kazakhstan as a Communications Associate. The experience led to his research interests, including educational equality, capital theory and global citizenship education. His recent co-authored article "Guests in Someone Else's House? Sense of Belonging among Ethnic Minority Students in a Hong Kong University" has been published in the *British Educational Research Journal.*

Chapter 9
Transforming Tertiary Education Environments for Sustainable Development of the Sakhalin Region in Russia

Irina Balitskaya and Nitika Jain

Introduction: The Sociocultural Background of Russian Multiculturalism

Russia has had a long history of tackling issues pertaining to ethnic and cultural diversity. It is one of the largest states in the world with a multiethnic population, with ethnic Russians and Orthodox Christians as most dominant. Russia is inhabited by 193 peoples, and its ethnic structure is also rather complex (Rosstat, 2011). The population of Russia, as of 2016, is 146,544,710 people, out of which the non-Russian population makes approximately 20%—including at least 120 ethnic groups according to official statistics (Federal State Statistics Services, 2016). Russians speak over 277 languages and dialects—89 of which are used in the public education system (30 as a language of instruction and 59 as a subject of study) (Rosstat, 2011).

Modern Russian society has transformed under rapid globalization, becoming a culturally diverse nation with a more heterogeneous population. New cultural groups, in the form of migrant workers, immigrants and refugees, have been introduced into regions where they did not formerly live. The evolving borders and new citizenship policies have also led to the creation of new minority groups. This demographic shift is changing the social landscape of Russia, where the ethnic Russian population has been the centerpiece of social policy for hundreds of years (Balitskaya, 2014, p. 69).

According to the Federal Migration Service, a significant number of the individuals who immigrated in 2015 came from outside of Russia—17,083,849 in total, including those from the Commonwealth of Independent States (CIS). There was also a noticeable increase in those who were granted citizenship of the Russian Federation: 209,799 people—almost a quarter of an increase as compared to the previous

I. Balitskaya (✉)
Sakhalin State University, Yuzhno-Sakhalinsk, Russia
e-mail: balitskaya_i@mail.ru

N. Jain
Institute of Education, University College London, London, UK

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_9

Table 9.1 The number of foreign citizens in the country

№	Citizenship	Total (persons)
1	Azerbaijan	518,819
2	Belarus	653,593
3	Kazakhstan	622,142
4	Kyrgyzstan	574,194
5	Tajikistan	878,536
6	Uzbekistan	1,755,781
7	Ukraine	2,481,408

Ministry of Internal Affairs of the Russian Federation (2016)

year (157,791). Table 9.1 shows the number of foreign citizens in the country (as of April 5, 2016).

However, the number and percentage of people that make up the ethnic composition of the population of Russia have changed. The number of Russians, Tatars, Ukrainians, Bashkirs, Chuvash and Mordovians has reduced, with the most noticeable decline in the number of Ukrainians living in Russia (as compared to 2002, they have now decreased by 1 million). At the same time, there has been an increase in the number of Chechens, Armenians and Avars.

Modern migration streams to Russia are highly ethnically diversified. Migrants paint a varied socioeconomic portrait—some achieve financial success, others experience economic hardship, and more than 50% of the migrants practice Islam (Skvortsov, 2013, p. 241)—representing a people that is considerably different in terms of language, traditions and behavior patterns from the population of the host society. Often, cultural differences and social marginalization are closely linked, putting ethnic minorities in a disadvantaged and relatively isolated position in society (Castles & Miller, 1993). Russian society faces challenges in addressing the inequalities of ethnic minority students. They often face discrimination residentially, at educational establishments and even when applying for social services. There exists a formal policy framework of peace, justice and equal rights, but it has not created change for the majority of migrants. The challenge in the educational arena is to transform the education system into an inclusive and socially just system that promotes the Sustainable Development Goals.

National Multicultural Policy

The current situation in Russia can be defined by the rise in ethnic revitalization movements. From the mid-1990s, an increase in ethnic consciousness became evident not only among ethnic minorities, but among all the ethnic communities of Russia. Nowadays, the process of national identity formation, self-determination, the rise of an ethnic self-consciousness, the realization of new values and a vision for ethnic development are clearly seen in Russian society. The danger of "culture loss" is a serious matter of concern for nation-states. But they are also cognizant of another danger: of being isolated from the global culture and civilization and thus stagnating the development of the nation and its adaptive qualities in a new world.

The evolution of civic society in Russia, which began to take place in the 1990s, found reflection in some of the democratic reforms of the Russian education system. Education was used as a tool to reform Soviet society and was expected to soothe tensions, help build a federal state and establish a democratic civil society. State policy was also influenced by international organizations such as UNESCO and the Council of Europe, various aid organizations and local and global NGOs. As a result of the collapse of the Soviet system's values, there was a large-scale identity crisis calling for an urgent and immediate solution. Russian society was confronted with new ideas of diversity and national identity; it understood the importance of addressing the challenges and opportunities that come with diversity while ensuring the inclusion of ethnically and religiously charged ideas in a developing democracy.

In the 1990s, the Russian government had done a considerable amount of work at the legislative level to develop a comprehensive state national policy. The Presidential Decree of June 15, 1996, No. 909 approved the "Concept of the State National Policy of the Russian Federation." An urgent need to look at ways to manage diversity and develop a more appropriate ethno-policy in Russia has shown itself in a number of official documents and programs: the Law "On the Rehabilitation of Repressed Peoples," the Act "On the Rehabilitation of Political Repression Victims," the Federal Law "On Public Associations," the Law "On the Languages of the Peoples of the Russian Federation" and the Federal Laws "On National Cultural Autonomy," "On Guarantees of the Rights of Indigenous Peoples of the Russian Federation" and regulations on issues of ethnic and cultural development of the peoples of Russia. The program for the promotion of tolerance and improving international relations in Russia, and a renewed Concept of National Ethno-Policy of the Russian Federation, was developed by a group of leading scholars from the Institute of Ethnology and Anthropology of the Russian Academy of Sciences. Recently, the concept of multiculturalism has also been incorporated into Russia's ethno-policy agenda (Dzurinsky, 2008, p. 153).

The Russian government formulates policies to address the promotion of minority cultures. However, the development of state-confessional relations has experienced significant difficulties due to external and internal challenges and threats, such as the negative impact of Soviet national policies (the repression and deportation of individuals from certain nations); the civic identity crisis caused by the transformation of the society; and the development of a market economy. Unbalanced regional growth and economic inequality have resulted in the growth of xenophobia and ethnic and religious intolerance.

A single Russian identity was replaced by different, often competing, forms of regional, ethnic and religious identities. It was admitted that the development of interethnic relations is affected by the following negative factors: a lack of action focused on the Russian civil identity and unity formation; high levels of social inequality; and inadequate measures to integrate migrants into mainstream society

(Order of the President of the Russian Federation, 2012). Thus, the Russian education system desperately needed a new concept of education to respond to and integrate the demands, needs and aspirations of culturally diverse people.

The Russian Federation's Ministry of Education issued an order (2006) approving the "National Education Policy Concept" and the plan of its realization in the period of 2004–2010. The Concept represents the system of views and principles of the state policy, stemming from the multicultural nature of Russian society, and defines the important educational and societal goals: to prepare the young generation to live in a multicultural world and to develop intercultural communication skills (Ministry of Education and Science of the Russian Federation, 2006). This document states that education at all levels must be structured to assist students in understanding and affirming their community's various cultures and developing the skills of intercultural communication. This national policy was addressed to all educational institutions and local education authorities: to implement programs and courses on developing the intercultural knowledge and skills needed to participate in the various cultures of the local community as well as in the national civic culture.

The strengthening of Russia's multicultural heritage and granting equal status to all cultures were legally established by the Law "On Education in the Russian Federation," that declared the cultural diversity of the Russian society (Federal Law, 2015). It declares unity within the educational space, as well as the protection and development of ethnic cultures and traditions of the Russian Federation in a multinational state. Education is believed to play a special role in preparing all citizens to be equal members of a modern global society. A culturally diverse society can strengthen the ethno-cultural orientation of the education system, with an increased role of national languages as a means of intercultural dialog and the Russian language as a transmitter of Russian and world culture (see the Law "On Languages of the Russian Federation Nations," 1991).

Modern Russian educationists (e.g., Dzurinsky, Vulfson, Suprunova and Makaev) have developed the "Concept of Multicultural Education," which generalizes the idea of multiculturalism in Russia and defines the objectives of education in a multicultural school environment. The Russian translation of "multicultural education" corresponds to its prevailing interpretation as education in the context of ethnic diversity with the domination of the culture of the titular ethnic group. Multicultural education, according to the Concept espoused by the educationists, is one of the many aspects of education, aimed at preparing the future generations for an active and effective life in a multinational and multicultural environment (Makaev et al., 1999). In 2003, the "Concept of Multicultural Education for Higher Education" was developed, published and implemented in a number of educational institutions of the Russian Federation (Davydov & Suprunova, 2003, p. 243).

Multicultural education in the Russian context is based on three main streams: Russian, national (non-Russian) and universal (Ministry of Education of the Russian Federation, 2012). All this confirms the idea of multicultural education as a unifying process: We are different, but we are together. The "national" serves as a primary means of mastering the world culture. The leading principle of such education is the disclosure of significant national traditions and rituals, analyzing the ways of using them in the upbringing of the child in the spirit of universal values and integration into the world community combined with the development of ideas of ethnic identity and the cultural tolerance of nations. This understanding of multicultural education in general coincides with the globally accepted interpretation, suggesting that the process of education be based on the recognition of local, national, global and humanistic values.

A number of significant studies have been carried out on these issues by Russian scholars (e.g., Dzurinsky, Gukalenlo, Borisenkov and Danilyuk). Much attention is paid to new ethnic groups that have emerged in Russian society. Scholars and educators are developing new areas of multicultural education, which reflect the interests of different groups of migrants. For example, a new approach for working with migrant students in Russian schools is called "Pedagogical Support," which involves the assistance and reinforcement of special educational services to improve the social status of migrant students.

Integration Problems in a Multicultural Society

The beginning of the 1990s was marked by democratization and individualization, but from the mid-1990s, the emphasis on state cohesion became more prominent. During the first half of the 1990s, the new country leaders did not pay serious attention to building national cohesion or national identity. During this period, preference was instead given to delegitimizing the Soviet type of political education in order to develop citizenship education policies stressing citizens' rights, knowledge of the legislation and lawful conduct for the purpose of building a constitutional state (Balitskaya & Rubleva, 2011, p. 337).

From the end of 1990s, citizenship education started to diverge as it was believed that the growing interethnic tensions in society were caused by the promotion of minority cultures and the emphasis on ethnic education. This led to the official publication of the Guidelines on Citizenship Education that raised the demand for educational establishments to cultivate future citizens who are able to tolerate, respect and engage with groups of people from different cultural backgrounds (see "The Concept of Patriotic Education of Russian Federation Citizens for 2001–2005"). The documents on education such as the "Concept of the Modernization of Education and the National Doctrine of Education" (MoERF, 2002), developed by the government, articulate the demand for educational change at the national level. The importance of well-organized citizenship education emphasizing human rights, the Russian Constitution and electoral processes is stressed. Cultivating a sense of national identity is also mentioned as one of the core values in the reform documents.

Scholars who have studied the multiple identities of immigrants (e.g., Cogan & Dericott, 2000) state that although citizens may possess an attachment to more than one identity, a sense of national identity and patriotism is usually seen as an essential ingredient of citizenship. Official curricula intend to give students a sense of identity, and often of national pride, and to teach them the rights and duties of a citizen as officially defined (Cogan & Dericott, 2000, p. 5).

Citizenship education was introduced as a formal component of the National Curriculum in Russia in 1990. It calls for an education consisting of knowledge, skills and values that help young people to become informed and responsible citizens. The topics covered in the course were integrated in the contents of other subjects in an interdisciplinary manner: history, geography, civic education, social studies, economics, political science, etc. These courses implement notions of citizenship such as universality, social literacy, cultivating respect for human relationships and global citizenship. Far more emphasis is now placed on national identity, patriotism and the need to become familiar with the history of the Russian Federation.

The government's focus on the cohesion agenda led to the discourse of patriotic education gaining momentum. Forming patriotism has recently come back as the focal point of educational reforms: The Concept of Modernization in the Russian Federation (2002) promulgates that the development of civic responsibility, political self-consciousness, proactivity, tolerance and the ability to socialize are the main priorities of Russian education. Citizenship education was then replaced with "patriotic-citizenship education." The Concept of Patriotic Education of the Citizens of the Russian Federation was adopted to address the growing emphasis on upbringing aimed at the reconsolidation of the people; it emphasizes the primacy of the national identity as opposed to the ethnic and/or sub-national identity.

The nature of citizenship education seems to be more of a reflection of domestic political developments than the product of an international policy agenda. Teachers, principals and administrators struggled to define a new ethic and develop a new citizenship curriculum. A number of regions have launched individual projects on citizenship education.

The Objective and Purpose of This Study

The multicultural nature of modern society determines a range of problems, which are fully reflected in education. The problems of ethnic diversity within the tertiary education environment attracted the attention of many scholars who conducted their research in the field of multicultural education, suggesting the elimination of the contradiction between the system and norms of the education of the dominant culture on the one hand and of the ethnic minorities on the other hand. Russian educators share the opinion that multicultural education helps people understand and appreciate the richness of the diversity of cultures and their contribution—it attempts to assist the adaptation of national groups into the mainstream and declares the equality of cultures.

In adjusting to a new academic environment, minority students have to face academic, social and psychological challenges. Scholars in the field of multiculturalism (Kincheloe & Steinberg, 1997; Parekh, 2000) suggest that immigrants may react in three ways in response to the host societies: They may assimilate in the new environment; they may remain separated from the host society and preserve their distinctive identity; or they may seek to integrate within the new society by engaging voluntarily with the values and traditions of the host society while trying to maintain loyalty toward their own identity. Such a decision-making process reflects a synthesis of personal factors (their own values, attitudes and behaviors) and external factors (such as the existing policies of the host society, which can either promote inclusion or exclusion).

The present study has been conducted on the tertiary education experience of three groups of people on the island of Sakhalin: Sakhalin Koreans, Indigenous Peoples of Sakhalin and migrants. Sakhalin Koreans constitute the largest ethnic minority group in the Sakhalin region of Russia, with a very specific history and ethnic identity that underwent a distinctive transformation. The second largest group of minorities are migrants from CIS countries, who make up more than 5% of the population on the island and experience integration problems into the host society. The third group are the indigenous minority that make up of approximately 400,000 people, who face problems of integration caused by the general situation of indigenous families—low standards of living and deprived of culture.

The purpose of this study is to analyze the University environment, which is essential in providing an effective education for these groups of students and promoting cultural differences. There is a great need for more qualitative-based research, with rich descriptions of the related factors and the experiences of these groups. The synthesis of the multiple perspectives provides a much more meaningful picture of the educational conditions of these groups of students. This study, therefore, aims to gain an in-depth understanding of factors related to the identification and placement of these groups of students from multiple perspectives: through an analysis of the educational setting as well as interviews with relevant stakeholders. The research questions that guided data collection and analyze to achieve the purpose of this study are as follows:

1. What are the educational conditions for these groups of students?
2. What are their attitudes toward studying?
3. How does their cultural awareness influence their studies?

Cultural Diversity in Higher Education

Research Methodology

This paper draws on data collected from ethnographic fieldwork in the Service and Tourism Department of Sakhalin State University and College of Education. These institutions admit a number of migrant and indigenous students and representatives of the Korean diaspora. The research includes in-depth interviews with students and the analysis of their views on how they feel studying at the College or University, what kind of difficulties they experience and what kind of assistance they expect to get. The interviews sought the following information: (a) understanding students' academic difficulties and needs; (b) understanding students' perception of the University environment and their relationships with other groups; and (c) understanding students' expectations of the University. The interviewees were also asked to share stories of how they felt being away from their local schools and communities, to detail the information about their parents' expectations concerning their education and to describe their relations with the mainstream and other groups of students. We also asked the respondents to define the difficulties they faced on campus. In addition, the curricula were analyzed to gauge whether they were reflective of the diverse sociocultural environment of the Sakhalin region.

The field research involved case studies of the learning experiences of thirty students from Sakhalin State University (among them, five migrant students, twelve Koreans and two indigenous students). Students belonging to the dominant ethnic group were also interviewed.

Ethnic Diaspora Students' Population (Sakhalin Koreans)

The immigrant community of the Sakhalin Koreans is not just a statistical population of migrants, but a social community with deep unity functioning autonomously—seeking the reproduction and consolidation of their national culture. Sakhalin Koreans are the largest minority group in Sakhalin and represent about 9% of the total population in the capital city of Yuzhno-Sakhalinsk (Gradoteka, 2015). For decades, Sakhalin Koreans suffered as an oppressed minority in the historical context, but, despite this fact, they made an effort to preserve their traditional values that tie them to their ethnic culture.

Having gone through "russification" through the Russian language, they rarely speak fluent Korean and communicate in Russian both within and outside their homes. The Russian language has become the only means of everyday communication. While in regard to their upbringing and language Sakhalin Koreans belong to the Russian culture, in terms of their ethnic awareness, they identify themselves with the Korean peninsula (Lim, 2012). The majority of respondents identify themselves more as Koreans than Russians or local. They are Koreans in their daily lives, keeping and passing forward Korean traditions, customs and culture. Despite the high degree of linguistic and cultural assimilation, young Koreans retain a sense of connection with their historical homeland, primarily on the basis of genetic origin.

The interviews show that respondents feel that they belong to the Korean ethnic group though they admit that the Russian culture is closer to them in mentality. Most of the respondents stated that they feel an urgent necessity to show their belonging to the Korean culture. Usually, this is expressed socio-culturally, i.e., through fashion and hairstyles, preferences in music that are the latest trends in South Korea, etc. It does not cause resentment among Russian students, and vice versa—it is of interest and respected, which shows that the status of Sakhalin Koreans in the local society is changing. Koreans are equally seen as representatives of the industrialized, democratic state (Balitskaya & Lim, 2013, p. 39).

Many Sakhalin Korean students stated that they are not discriminated against and are not considered a migrant group by mainstream students. When expressing his outlook toward the minority groups, one of the mainstream students said that some of the minority groups can have a negative impact on the life of the local community, but not the Koreans as they have been living with the Russians for a long time in the same area and have had a good relationship with them. Mainstream students do not show a negative attitude toward Korean students and do not consider them foreigners or aliens. Interestingly, many of them do believe that both the Russians and Koreans were responsible for developing the Sakhalin region together.

Nevertheless, some of the ethnic Korean respondents noted that their parents still remember experiencing ridicule at school due to either the nature of Korean food, their household objects or their appearance; for example, classmates would express surprise at how they could eat rice or kimchi all the time. The word "Korean" was used as an insult at school at that time; even nowadays, as some Korean students mentioned, sometimes they feel uneasy when called by their nationality, although they are not treated like outsiders.

Many respondents mentioned that they need to show their "Koreanness," which they try doing by congregating in the Korean Cultural Center, through Korean language courses, and participating in other cultural activities. Their group identity is often formed by memberships to and affiliation with such organizations and events. An increasing interest of young Sakhalin Koreans in their historical homeland and their desire to study the Korean language reflect the intensification of ethnic identity and a sense of pride in their culture. Additionally, students' interest in the Korean language has increased tremendously, and some Sakhalin Korean students also study at South Korean universities. Contests in the Korean language and Korean pop music festivals organized by the departments of Korean language with the support of well-known Korean companies also attract many mainstream students that contribute toward a positive attitude in relation to a given ethnic group.

Like their parents, many young, third-generation Sakhalin Koreans continue to look toward South Korea for economic opportunities. Most of them are planning to study or work in South Korea. Many Korean families own businesses importing goods from South Korea to Russia so young people aim at acquiring jobs related to the economy, business or management.

Sakhalin Korean students, therefore, mainly study business administration, economics and/or management. At present, one can comment on the decrease in interest among Korean students toward the department of the Korean language: While in the nineties mostly students of Korean origin were trained there, now the majority constitutes the Russian students. This fact can be explained by the growing opportunities to master the Korean language and get good jobs in Korean-Russian joint ventures. As for Sakhalin Korean students, only a few of them have managed to speak in fluent Korean as Korean is exceedingly difficult for native speakers of Russian. So, younger Koreans tend to make a rational choice: If they take up foreign language studies, they prefer to study English.

Thus, after sixty years of living together in one area, peaceful relations with the mainstream group influenced the formation of a positive attitude toward Sakhalin Koreans who have experienced linguistic assimilation but are still trying to keep their ethnic identity intact.

Migrant Students' Population

Nowadays, migrant students are found in almost every Russian university. As the rejection of migrants has turned into a serious problem in society, these students have faced many challenges in education. As perceived by the local population, a migrant is not seen as the "other," but nearly always "a stranger," and it is usually accompanied by the manifestation of intolerant behavior toward them (Mukomel, 2013). The locals blamed migrants for all problems and believed bad things happened because of their presence in society. The University has developed a more favorable attitude toward migrants. Professors of the University stated that mainstream students do not show hostile behavior; normally, they have friendly conversations with migrant students. However, when discussing relations between the mainstream society and migrants, some of them tend to express stereotypical views (e.g., some advocate that all migrants are involved in illegal businesses and cause many problems in society). They also mentioned that mainstream students react positively to migrants if they follow the behavior patterns and style/fashion of the mainstream. If they dress differently and speak their native language, it tends to cause suspicion and fear. When the mainstream students were asked what they feel when people speak other languages, they revealed that it depends on the language spoken (as expected, English does not arise any feelings of negativity or suspicion; but if it is a language of any migrant community, it usually makes them feel uncomfortable).

The Principal of the College of Education described a case when a migrant student—a Muslim—asked for permission to wear the hijab in classes. The Principal did not object but expressed concern that this type of clothing was very unusual for the region and could trigger a reaction from other students. The student was embarrassed and disappointed as she explained that she used to wear her national dress and felt very uncomfortable wearing any other kind of clothing. Often, migrant students feel the need to talk about their culture. The professors stated that they are happy to talk about the way of life of their people, traditions and customs if other students are also showing an interest in it.

Another significant concern for migrant students is the problem of bilingualism. Since the cultures differ greatly, when discrimination occurs in a bilingual situation, there is a cultural distance between the linguistic groups. A language barrier is a major challenge when working with migrant students. Of course, all students who enroll in the University have a good command over Russian, but they can follow different communication patterns which can become a reason for misunderstandings. Many of the respondents noted that they feel the need to speak their native language as they can speak it only at home with their parents. Most of them stated that if the University had courses or subjects in their native language or concerning their culture, they would eagerly attend them.

Besides language barriers, students from countries with a more traditional lifestyle than Russia have to undergo a culture shock when faced with Russian society, as sociocultural influences and challenges are immense. They are expected to master the educational standards while learning new social norms. Many migrant students mentioned that they often do not understand the rules of communication of the other students and teachers—that is why they prefer to make friends with other individuals from similar backgrounds. They face pressure from the dominant culture to conform while their parents and extended family expect them to maintain their native social norms. Assimilation is difficult, and older relatives may disapprove, but clinging to their own culture also creates further challenges in being accepted by the dominant culture. Young people must learn to deal with stress of acculturation as they find their unique place in society (Alexandrov et al., 2012).

When they enter the University, migrants tend to choose the departments of managerial professions which enable them to take higher positions in society. A student, who is trained in the magistracy, when asked about the motivation behind his choice answered that he wants to take up a managerial position in the local government. Many of them want a seat in the state power in order to support their migrant community in the future.

Indigenous Students' Population

A series of studies conducted in the past 10 years provides strong evidence that indigenous students perform at a significantly lower level than non-indigenous due to a number of reasons, such as disadvantaged and relatively isolated positions in society, cultural differences, low expectations, prejudice and a mismatch between the home and school cultures (Battiste, 2002). The situation of indigenous peoples in education remains dire, and the number of indigenous students at Sakhalin State University is decreasing. After finishing high school, indigenous children have access to all educational programs with some privileges because of their minority status. There exists a contract between the Ministry of the Sakhalin Region and the Russian State Teacher Training University in St. Petersburg for minority children to study through the state-provided grants. However, the number of scholarships awarded is limited, so only 1–2 students per year have a chance to enter university.

Besides, given that they have to leave the community and start living separately, they hardly have the opportunity to continue studying or speaking their native language, leading their traditional way of life or taking part in community activities. They become isolated and very vulnerable in their surroundings, living a separate life without parents, elders, traditions, customs and their native way of life.

Students asserted that sometimes they experienced prejudice and stereotyping, but this occurred more often in high school than at university or college: "Nobody cared about our nationality at the University; very often we are perceived as Koreans. Our group mates don't have any idea how we live – when someone suddenly learns about our nationality, they ask silly questions like do we live in wigwams or do we ride deer." Other respondents revealed that very often they are called "gilyaks," which is a very offensive term for the indigenous students. Surprisingly, this derogatory term for Nivkhs (an indigenous ethnic group native to Sakhalin) is mentioned in certain history textbooks as a colloquial word; therefore, many Russians are unaware of the negative connotations of this word and use it in everyday communication. Many respondents mentioned that they were being referred to by this word and experienced very negative emotions.

Indigenous students are likely to exhibit behavior that they have been socialized with, while the University may value very different behavior. Some of the most common cultural practices include differences in the way people show they are paying attention and giving respect, the meaning of passive behavior and the meaning and use of silence. One of the respondents mentioned that she feels uncomfortable when she is expected to talk extensively during discussions, because such behavior is not approved in her family. She noted that her grandfather always says that there is no need to talk if you do not have something very important to say. She also noted that listening and observing are highly valued skills in her community.

One respondent concurred with the opinion that professors do not like to ask indigenous students questions; he feels that they believe that they are not able to study well. Native students are portrayed as having too many problems and are negatively affected by teachers, who hold low expectations from them.

A serious problem is stigmatization, which not only causes conflicts but also makes students reject their own culture. Many interviewees noted that they are often viewed as people who have inclinations toward alcoholism and drug addiction. Only one of the interviewed students said that she perceived such treatment as a challenge and wanted to prove that indigenous young people are sane, intellectual and motivated individuals. Other respondents noted that they were discouraged by such attitudes of others.

Speaking about their future career options, many of the indigenous students connect it with their cultural studies. As one of the students said in his interview,

> Having come to live in the city I realized that many people had never heard of Nivkhs people. I think this is wrong, because everybody should know the history of where they live, and their history is closely linked to the indigenous peoples. The history of the region begins with the history of the indigenous peoples, as they are the first people to have lived there. Then I begin to think about the place where my people can study. I believe that they must be trained to get jobs that are in demand at the moment, so they can earn money and it can help them in life. It can be the profession of a teacher, a guide, a chef, an entrepreneur, a social worker. But, on the other hand, it shouldn't be just professional knowledge; education should also be based on a thorough study of the history, language and culture of indigenous peoples.

Another respondent writes, *"Students should have the opportunity to learn crafts, folklore, traditional games and sports, and literature. I think there should be a special department for indigenous peoples with two divisions: one for the history and another for the study of languages. Students will be able to develop different skills in these* *divisions."* Some students expressed that they would like to become a part of the Indigenous Department which can be introduced at Sakhalin State University.

Having analyzed the interviews, it can be concluded that indigenous students suffer many problems and sometimes a serious deal of a mental stress. Some of them experience the pain of isolation and a feeling of loneliness. Accustomed to the local traditions and way of life, they have difficulties assimilating into the University environment. Most of them experience cultural discontinuity and low self-esteem, perform poorly and drop out due to adaptation problems.

University Responses

In recent times, educators have begun to realize that educational institutions are clearly not meeting the needs of various groups of students, while it is obvious that when cultural peculiarities are taken into consideration the achievements of students are higher (Nieto, 2004). In this context, higher education institutions play an important role. Most universities with diverse students' populations are reporting difficulties in creating a classroom environment and an institutional climate that foster the full academic and personal development of students. Research studies suggest that most professors adopt an assimilation approach in dealing with cultural diversity, so this problem is of great importance for the Sakhalin State University.

We analyzed the University curricula and found that, despite some disparities, it does include ideas of internationalism, international communication and other cultures. Ideas of multicultural education are incorporated into the Humanities section of the curriculum, while there are also courses that aim to raise cross-cultural awareness skills. We share the opinion of some scholars (e.g., Sleeter & Grant, 2003) and recommend the professors of the University examine the current curricula for accuracy, inclusivity, bias, stereotyping and omission as negative stereotypes, coupled with inadequate and inaccurate information about non-dominant cultures. It is very important to include information on minority students' communities and histories, validating their presence by integrating their stories, cultures and perspectives as worthwhile elements of the curriculum. Scholars such as Hermione Harris argue that social invisibility is one of the main reasons for continuous underachievement of some ethnic groups and migrant students compared to native students and other ethnic minority groups.

As all students are representatives of various racial and ethnic groups, they both think of and study within their own ethnic/racial identities and intergroup relations. We find ourselves facing some of the very issues that face a multicultural society. As a result of these discussions, students realize that they know very little about their own ethnic group and are often surprised at what they learn about other groups. The shift in teaching methods, curricular materials, teacher dispositions and University-community relations is needed. We have focused on interconnected dimensions: content, process and discourse, and a supportive campus environment as the appropriate linkage between knowledge and behavior.

We bear in mind that the mainstream curriculum generally ignores minority cultures and experiences, while the primary goal of a pluralistic curriculum is to present a truthful and meaningful interpretation of the human experience. The traditionally mainstream focus of the curriculum makes it very hard for the mainstream students to accept the idea of other cultures within their country and to suggest that there are other cultures that have validity and a history.

Nowadays, multiculturalism is considered to be a condition of the mind that enables people to create and participate actively in a diverse society. It helps people to see a certain reality from other perspectives and welcome other views and cultures that are different from theirs. Courses such as foreign languages, literature and world culture introduce important notions of ethnic identity, racism, pluralism, assimilation, gender, etc. Intercultural communication is a new interdisciplinary course with the goal to cultivate cross-cultural awareness skills, with lessons on tolerance and diversity. Intercultural courses face a pertinent question on national unity: how to incorporate universal democratic ideals like civic equality and individual liberty into existing perspectives on multicultural education.

As the University authorities realized the necessity of taking special measures to create a multicultural environment, they support scholars who are involved in the process of creating a friendly environment for all groups of students. A group of researchers in the fields of psychology, education, sociology, history and linguistics have developed guidelines for creating a comfortable environment for tertiary education. Theoretical basis for the guidelines is key ideas from modern progressive theories of multicultural and culturally inclusive education (e.g., those of Dzurinsky, Gukalenlo, Borisenkov and Danilyuk). We take into account an ethno-cultural approach with its roots in Russian ethno-pedagogical traditions, that curricula, teaching methods, student skills and knowledge can be deepened and strengthened by appealing to folk traditions (see Volkov, 1999). We have also taken into consideration the ideas of culturally responsive schooling (CRS), widely known as a promising strategy for improving the education and increasing the academic achievements of indigenous students (e.g., Battiste, Ermine, Henderson and Smith), and a compatibility theory which posits that schooling is most effective when there is a greater match between the cultural norms and expectations of the school and those of the students (Belgrade et al., 2002).

The guidelines below, developed on the basis of abovementioned ideas, help direct the careful and limited use of standardized curricular materials and develop alternative and supplemental curricular materials that are currently responsive to all groups of students' population:

- Review the texts used in the classrooms and make the content relevant to minority cultures and histories.
- Be accurate and fair in the portrayal of indigenous peoples in the both past and present.
- Strengthen the quality of learning materials by introducing topics on indigenous peoples' lives, history and traditions. This will also allow indigenous students to engage in topics that are of more interest to them.

- Relate theoretical questions to students' personal experiences, to their group experiences in society or to related campus issues.
- Introduce topics such as ethnic identity, racism, pluralism, assimilation and gender. Even if a course is not dealing with problems of ethnic groups, it is still possible to teach multicultural issues.

An approach of this manner will also aid mainstream and minority students in developing necessary skills such as overcoming prejudices, avoid stereotyping and acquire a greater tolerance toward other cultures.

Individuals interested in teaching and learning in this manner at the University serve an important function as a governing board for pedagogical concerns of multicultural teaching. This kind of pedagogy will give all participants the motivation to develop a deeper understanding of issues and share the skills needed to bring this awareness to an expanding network of colleagues. The board has developed certain guidelines concerning behavior and teaching in a pluralistic society which are yet to be reflected in official requirements: The teaching style and class interactions are participatory, interactive and diverse; teachers must be attentive not only to the multicultural content, but also to the different communication styles that exist across ethnic groups; and they must engage all groups of students in the learning process. Teachers must possess a particular set of dispositions, attitudes, values and knowledge and be able to create alternative curricula and utilize a variety of pedagogical approaches.

Discussion

Currently, Russian society is facing the advent of new ideas of diversity and national identity; there is an understanding of the importance of addressing the challenges and opportunities of diversity while balancing the inclusion of ethnic and religious ideas in a developing society. The growing reality and awareness of globalization and diversity have caused social and political concern in regard to the national identity—the development of which is considered one of the main goals of education. Democratic and free-market reforms in Russia have brought the need for the educational system to be capable of preparing young people for the constantly changing world and encourage active participation in local, national and global developments (Dzurinsky, 2008).

The problems that accompany ethnic diversity in a university environment attracted the attention of many scholars, who conducted their research in the field of multicultural education, which suggests the elimination of contradiction between the system and norms of the dominant culture education on the one hand and of the ethnic minorities on the other hand (Sleeter & Grant, 2003). Scholars and educators are developing new areas of multicultural education, which reflect the interests of different groups of students which involves the assistance and reinforcement of special educational services to improve the social status of minority students (Gao &

Liu, 2022; Borisenkov et al., 2004). These relatively new practices are supposed to be a step forward toward integration of the growing migrant population into the dominant Russian-language culture. Though the educational system is not designed to meet the needs of immigrant youth, the integrative policies create favorable conditions for the accommodation of minority groups—and, generally, for the development of democratic reforms—and create favorable conditions for intercultural dialog and learning, promotion of mutual tolerance and understanding.

The prevailing interpretation of "education for ethnic minority groups" is based on a concept of multiculturalism, and it is centered around two ideas: one of a culture and/or traditions that each specific group has and another of diversity of cultures that nominally defines ethnic groups (or separates them from one another). Thus, the concept of multiculturalism implies a peaceful co-existence of ethnic groups which are different in their cultural, linguistic, intellectual and spiritual traditions. For the purpose of practical implementation, multiculturalism means full social and educational integration of students who belong to different ethnic minority groups.

Since the national composition of the different regions of Russia is very diverse, the relationship between the ethnic groups has an effect on the practical implementation of national policies. Its implementation will depend on regional policies and educational institutions, as the requirements for the realization of these policies are not obligatory.

National curricula that are based on the general concept of multicultural education are aimed at the formation of the ability to live in a multicultural environment and addressed mainly to the mainstream students. Multiculturalism is a way of putting forth some alternative cultural paradigms for discussion as it is very hard for the mainstream to accept the idea of other cultures within their country and to suggest that there are other cultures that have validity and a history.

As a part of our study, we interviewed 30 students of Sakhalin State University. As shown through the interviews, the mainstream students, in general, have formed a positive attitude toward various ethnic groups. Nevertheless, many of them have stereotypical opinions and prejudices against members of certain ethnic groups. The nature of their relationship usually depends on the history of relations between the mainstream and minority groups, their social status and their interests.

It has been noted that different ethnic groups perform differently within the same educational framework. Educational achievements and motivation are considered a complex social phenomenon and can be analyzed from different points of view. The difference and gaps in the educational attainments and participation of migrants can be due to the following group specificities: different ethnic origins of the migrant groups and destination effects; the socioeconomic situation of the migrant families, their period of arrival in the country and entering the education system; the language used at home; gender; and generations of migrants (European Union Commission, 2013). Different effects were also evident in first- and second-generation migrants. Migrant students often study better than their mainstream counterparts as they are attempting to achieve a more advanced level of education than their migrant parents in order to move up in the Russian workforce. Ethnic groups connect their culture and language preservation with the possibility of this preservation by means of education. The danger of culture loss is a matter of concern but they also realize another danger: to be isolated from the global culture and civilization and thus stagnate the development of the nation and its adaptive qualities in a new world. This problem is especially critical for the native people of Far East.

Having analyzed the interviews, we have come to the conclusion that indigenous students suffer many problems and sometimes a serious deal of a mental stress. Some of them experience the pain of isolation, a feeling that they have nowhere to belong. Accustomed to the local traditions and way of life, they have difficulty while assimilating into the University environment. Most of them experience cultural discontinuity and low self-esteem and perform poorly. Many indigenous students drop out due to adaptation problems. Native students often mistrust learning as a reaction to negative stereotypes perpetuated by peers and teachers. All these problems (low achievement, negative cultural identity, difficulties in adjusting to a new way of life, etc.) indicate the necessity of a special support system in the University.

We identified the main problems faced by ethnic minority students and developed a strategy for universities that involves a number of important elements relating to curriculum, pedagogy, teacher knowledge, community involvement and special educational services that will help improve their social status. The traditional implementation of the national curriculum is complemented by the guidelines developed by a group of volunteers—professors from the Sakhalin University who share ideas of multicultural education. They identify areas for training University staff to work in a culturally diverse environment. Creating a friendly environment for all students represented is still at the beginning stages, with no obligatory guidelines to implement it.

Our research gives a theoretical foundation for a new program in Sakhalin State University for providing mainstream and minority students with an adaptive, comfortable environment and thus supporting all groups of students. We support this idea by suggesting our approach to its realization. The implementation of this system is still partial, and it is planned to be completed in the further work.

Appendix

Questionnaire

1. Do you think that your culture is respected at SSU?
2. Have you ever felt that you have been treated differently because of your nationality?
3. Have you ever felt awkwardness/being a subject of mockery because of your nationality?
4. Do you think that professors/students at SSU respect students of other cultures?
5. Did you learn about different cultures at SSU?
6. Did you learn about your culture/famous people of your culture at SSU?

7. Do you know about any activities taking place at SSU that make you aware of your own culture?
8. Would you like to have more opportunities to introduce your culture?
9. Do you have an opportunity to learn your native language?
10. What are the nationalities of your friends? Why do you spend most of your free time with them?
11. Do you observe traditions and customs of your culture? Are you proud of your nationality?
12. Do you think that study is more difficult for you than for Russian students? If yes, why?

References

Alexandrov, D., Baranova, V., & Ivaniushina, V. (2012). Migrant children in Russia: Migration, ethnicity and segregation in St. Petersburg. In *St. Petersburg: Sociology of education and science laboratory working papers*, SESL WP 001. http://slon.hse.ru/

Balitskaya, I. (2014). *Facing the challenges of ethno-cultural diversity in Russian schools* (pp. 69–85). Paper presented at the International Conference of the Korean Association for Multicultural Education Dreaming an Impossible Dream: An Empowering Education for All, Hanyang University, Seoul, Korea.

Balitskaya, I., & Lim, E. (2013). *Between two cultures: Two identity crisis of Sakhalin Koreans*. Paper presented at the 4th HK International Conference, Changes and Challenges in Glocalizing Russia and Northeast Asia, Hankuk University of Foreign Studies, Seoul, Korea, October 18–19.

Balitskaya, I., & Rubleva, L. (2011). *The development of citizenship education curriculum in Russia: National identity and global citizenship*. Paper presented at the International Conference of the Korean Association for Multicultural Education Beyond the Nation State: Remodeling of Citizenship Education in a Global Age, Woosuk University, Korea.

Battiste, M. (2002). *Indigenous knowledge and fedagogy in first nations education: A literature review with recommendations* (pp. 18–19). Prepared for the National Working Group on Education and the Minister of Indian Affairs, Indian and Northern Affairs Canada (INAC), Ottawa, Canada.

Belgrade, M., Mitchell, R., & Arquero, A. (2002). What do we have to do to create culturally responsive programs? The challenge of transforming American Indian teacher education. *Action in Teacher Education, 24*(2), 42–54.

Borisenkov, V., Gukalenko, O., & Danilyuk, A. (2004). *Policulturnoe obrazovatelnoe prostranstvo Rossii: Istoriya, teoriya, osnovy proektirovaniya [Polycultural Space of Russia: History, Theory. Basic Projects]*. Rostov State University.

Castles, S., & Miller, M. (1993). *The age of migration: International population movements in the modern world*. Palgrave Macmillan.

Cogan, J. J., & Dericott, R. (2000). *Citizenship for the 21st century*. Kogan Page.

Davydov, Y., & Suprunova, L. (2003). *Kontseptsiya polikulturnogo obrazovaniya v vysshei shkole Rossiiskoi Federatsii [Concept of Multicultural Education for Higher Education in the Russian Federation]*. Russian Academy of Science, Pyatigorsk Linguistic University.

Dzurinsky, A. (2008). *Rossiyskaya pedagogika: Istoriya I sovremennost' [Russian Pedagogy: History and Modern Times]*. Sakhalin State University.

European Union Commission. (2013). *Study on educational support for newly arrived migrant children*. Public Office of the European Union. http://eunec.eu/sites/www.eunec.eu/files/attachment/files/report_en.pdf

Federal Law. (1991). *O yazykah narodov Rossiiskoi Federatsii [About the Languages of the Peoples of the Russian Federation]* No. 18071.

Federal Law. (2015). *Ob obrazovanii v Rossiiskoi Federatsii [On Education in the Russian Federation]*. No. 273—FZ, 1.09.13 (Amended in 2015) chapter 1. Article 3 the basic principles of state policy and legal regulation of relations in the sphere of education.

Federal State Statistics Services. (2016). http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/

Gao, F., & Liu, H. (2022). The empowering potential of higher education for underprivileged ethnic minorities' sustainable development in Hong Kong: Educational policies for access and equity. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 129–141). Springer. http://doi.org/10.1007/978-981-19-5104-6_8.

Gradoteka. (2015). *The 2010 Yuzhno-Sakhalinsk sahalinstat census: Percentage of Koreans in the general population.* http://gradoteka.ru/city/yuzhno-sahalinsk/detail/obschee-o-gorode/nacionalnyy-sostav/nacionalnosti-koreycy

Kincheloe, J., & Steinberg, S. (1997). *Changing multiculturalism: New times, new curriculum.* Open University Press.

Lim, E. H. (2012). *Etnokul'turnoe obrazovanie I vospitanie koreiskoi diaspory na Sahaline [Ethnocultural education and upbringing of Sakhalin Korean diaspora in Sakhalin]*. Paper presented at the Education and Ethnic Relations Conference (IEIR), Izhevsk.

Makaev, V., Suprunova L., & Malkova, Z. (1999). *Kontseptsiya polikulturnogo obrazovaniya v sovremennoi obshcheobrazovatel'noi shkole [Concept of Polycultural Education in a Modern Comprehensive School]*. Pyatigorsk.

Ministry of Education and Science of the Russian Federation. (2006). *O kontseptsii natsionalnoi obrazovatelnoi politike Rossiiskoi Federatsii [About the Concept of National Education Policy of the Russian Federation]*. Order No. 201. Retrieved August 3, 2006, from http://element.ru/library9/pr201.htm

Ministry of Education of the Russian Federation (MoERF). (2002). O koncepcii modernizacii rossiiskogo obrazovanija na period do 2010 goda [Concept of the Modernization of Education and the National Doctrine of Education 2010]. Order No. 393, 11 February 2002. https://normativ.kontur.ru/document?moduleId=1&documentId=14553#h254.

Ministry of Education of the Russian Federation. (2012). Proekt kontseptsii policulturnogo obrazovaniya v Rossiiskoi Federatsii [The Concept of Poly-cultural Education in the Russian Federation]. http://old.mon.gov.ru/work/vosp/doc/6988/

Ministry of Internal Affairs of the Russian Federation. (2016). *Migration statistics.* https://xn--b1aew.xn--p1ai/dejatelnost/statistics/migracionnaya.

Mukomel, V. (2013). *Integration of migrants: Russian federation.* CARIM—East RR 2013/European university institute, Robert Schuman center for advanced studies. European University Institute.

Nieto, S. (2004). *Affirming diversity: The sociopolitical context of multicultural education* (4th ed.). Pearson.

Order of the President of the Russian Federation. (2012). *Strategiya gosudarstvennoi natsionalnoi politiki Rossiskoi Federatsii [Strategy for State National Policy of the Russian Federation]*. Moscow, Kremlin, No 1666, 2012. http://minnac.ru/res_ru/0_hfile_1118_1.pdf

Parekh, B. (2000). *Rethinking multiculturalism: Cultural diversity and political theory*. Macmillan.

Rosstat. (2011). Vot takie my rossiyane. Ob itogah vserossiiskoi perepisi naseleniya 2010. [Here we are Russians. About the results of population census 2010]. *Rossiiskaya Gazeta*, 2011, Federal Issue No. 5660 (284). http://www.rg.ru/2011/12/16/stat.html

Skvortsov, N. (2013). *Migratsionnaya politika v Rossii: integratsiya I etnichnost [Migration policy in Russia: Integration and Ethnicity]*. Paper presented at the 4th HK International Conference, Changes and Challenges in Glocalizing Russia and Northeast Asia, Hankuk University of Foreign Studies, Seoul, Korea, October 18–19.

Sleeter, C., & Grant, C. (2003). *Making choices for multicultural education: Five approaches to race, class, and gender* (4th ed.). Wiley.

Volkov, G. (1999). *Etnopedagogika [Ethno-pedagogy]*. Academia.

Irina Balitskaya is Professor of Sakhalin State University, Russian Federation, Dr. of Education. Her research interests are in multicultural and comparative education. Among her works are the books *Trends in the developments of tourism education in Thailand; Multicultural education in multiethnic societies; Academic mobility in Russian universities*; chapters *Professionals training in the framework of cross-border academic mobility programs, The Development of Citizenship Education curriculum in Russia: National identity and global citizenship; Cultural diversity and the problem of inequality in Russian society, Facing the challenges of ethno-cultural diversity in Russian schools.* Her works focus on the problems of intercultural aspects of education. She is the member of Comparative Education Council (Russian Academy of Education, Moscow); editorial board member of the Pedagogical Image journal (Irkutsk, Russian Federation); head of the Master program in Education and cross-cultural communication with Asia-Pacific countries.

Nitika Jain is an educationist, working within the realm of comparative and international education. She is currently pursuing her PhD in Education at the Institute of Education, UCL, focusing on refugee education in India. Nitika has previously worked with UNESCO MGIEP, J-PAL South Asia, the Education University of Hong Kong, and VSO. She holds a Masters in Education from the University of Hong Kong and a Masters in International Development and Policy from the University of Chicago.

Chapter 10
Institutional Brand Construct and University Sustainability

Nan Jia and Jae Park

Introduction

In the last three decades, universities have evolved to become pseudo-corporations involved in competition for high ranking, status, and funding from government or private capitals (Altbach et al., 2009; Doyle & Brady, 2018). With competitiveness as a key benchmark, universities, especially newer ones, are forced to work extensively in their marketing and, subsequently, in their branding (Aula et al., 2015; Chapleo, 2007; Naudé & Ivy, 1999). Continuous efforts are made in building a strong institutional brand so as to attract stakeholders, increase recognition of their presence, and achieve competitive advantages ahead of rival universities (Melewar & Akel, 2005). These branding activities are conducted with the intention of drawing recognition students and parents, as well as external funding from government or non-government bodies (Wæraas & Solbakk, 2009), so as to ultimately develop and maintain economic and social growth in a sustainable manner (Maragakis & Dobelsteen, 2013).

This trend prompts a need to understand how the construct of 'university qua brand' contributes to the institutional sustainability. The link between institutional branding and sustainability has attracted scant attention in the research literature on higher education. Extant literature on corporate/industrial branding suggests, however, that 'brand commitment' of staff with shared values is conducive to corporate economic and social growth and sustainability, because staff committed to the

The original version of this chapter was revised: The author affiliation has been updated in this chapter XML. The correction to this chapter is available at https://doi.org/10.1007/978-981-19-5104-6_15

N. Jia
UOW College Hong Kong, Hong Kong, China

J. Park (✉)
The Education University of Hong Kong, Hong Kong, Hong Kong
e-mail: jpark@eduhk.hk

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_10

corporate brand will be more diligent in their service to internal and external stakeholders of the industry (Borland, 2009; Linnenluecke & Giffiths, 2010; Teh & Corbitt, 2015; Vallaster & Lindgreen, 2013). Literature on corporate branding has prompted us authors to investigate the dynamics of institutional branding through staff and their shared values and commitment in the higher education context.

The present research adopted a multiple case study methodology by examining the situation in Hong Kong. Two universities established in the 1990s with similar historical backgrounds, size, and with comparable level of public recognition were investigated. The data were collected by interviewing protagonists at different hierarchical levels, both vertically (senior management and department) and horizontally (student affairs and academic). Using a grounded theory data analysis approach, the authors made within-case and cross-case comparisons. Research findings were organized according to university's internal brand building processes with different type and degree of stakeholders' involvement. The chapter concludes with a discussion on several implications of the findings for social and economic sustainability of universities in Hong Kong.

A score of connotations has been assigned to the word 'brand' in the industry: Image (Boulding, 1956), product identifier (Keller, 2003), guarantee or risk reducer to ensure quality of the products (Aake & Joachimsthaler, 2000), and tactical mechanism streamlining corporate management and governance (e.g., Aaker, 1996; Balmer, 1995; Davis, 2002; De Chernatony, 1999; Schroeder, 2017). Aaker (2004) defines a 'corporate brand' as an identifier that represents an organization and reflects its heritage, values, culture, people, and strategy. More holistically understood, therefore, the influence of a corporate brand transcends the realms of commerce and commodity as it aligns with the organization mission and depends on the managerial interactions with multiple stakeholders (Aaker, 2004; Balmer & Gray, 2003).

With increasing quest for recognition (Park, 2009) and to sustain their social and economic growth, universities have introduced institutional brand as one of their most valuable intangible assets (Keller & Lehmann, 2006). Managed well, an institutional brand could provide a university with the competitive advantage of being able to effectively convey its organizational identity and strength to their actual and potential stakeholders, such as students, parents, government, and other organizations (Melewar & Akel, 2005; Sulkowski et al., 2019).

Instances of higher education strategies over institutional branding are: Brand positioning based on students' evaluation (Gray et al., 2003); market segmentation based on students' behavioral and psychological traits (Lewison & Hawes, 2007; Ying & Zhu, 2007); institutional preference matching the brand personality with students' self-concepts (Ying & Zhu, 2007); communication strategies that generate marketing content and channel (e.g., Cheng et al., 2009); essence-oriented and value-based strategies to achieve university missions (e.g., Jia, 2014; Wæraas & Solbakk, 2009); and, branding campaigns (e.g., Vincent et al., 2020).

Universities' organizational strategies on sustainability have become a critical vision for organizations (Maragakis & Dobbelsteen, 2013; Vallaster & Lindgreen, 2013). Narrowly, sustainability refers to an unrelenting growth in the social and economic aspects of organizations (Linnenluecke & Griffiths, 2010). Recent literature (e.g., Maon et al., 2009; Vallaster & Lindgreen, 2013) indicate that staff committed to a corporate brand are most likely to institutional growth. It suggests that the more and better the staff understand the organizational brand image, the better their behavior, and thus, the economic and social aspects of the corporation's sustainability can be secured (Camilleri, 2015; Johnson & Scholes, 2002).

Research Aims and Methodology

Hong Kong was selected as the location for this research because it is generally regarded as an educational hub in the Greater China Region (UGC, 2004; Cheng et al., 2009), and its universities spell out their missions and branding strategic plans in official documents and websites. Branding efforts are more intense among younger universities than the time-honored universities such as the University of Hong Kong and the Chinese University of Hong Kong.

Hong Kong universities highlight their brands in different ways. In their strategic plans, for example, the City University of Hong Kong articulates an "*Enhance Good Governance and the CityU Brand*" while the Hong Kong Polytechnic University indicates its institutional strategies under the section "*Internationalization, Branding and Marketing.*" The Education University of Hong Kong delivers its brand image in the sign-off of every staff email that includes its logo and the sentence "*2nd in Asia and 13th in the world in Education (QS World University Rankings by Subject 2017).*" Lingnan University explains the meaning of its logo, accompanied by its anthem, on its website under the heading '*University Identity.*' Hong Kong University of Science and Technology reports its world ranking on its webpage '*About HKUST*,' and Hong Kong Baptist University has a prominent website section on sustainability, where it highlights an image of social responsibility.

This study aims to investigate:

i. how branding is defined by administrative leaders
ii. what shared values administrative leaders promote among staff in the brand building process
iii. how internal commitment to the university brand is construed.

The research followed an inductive logic (Barratt et al., 2011; Eisenhardt, 1989), and a multiple case study methodology was adopted. In order to generate new understanding, the cases were selected on the basis of similarities such as history, positioning, and size (Yin, 2003). The two selected cases had similar positioning (comprehensive disciplines or subjects offered), established at the same period (the 1990s) and had similar number of students.

Purposive sampling was adopted to collect as much information as possible for theory generation. As shown in Table 12.1, there were six interviewees, including

Table 10.1 Research participants

		University A	University B
Organizational level		Associate Vice President (UA1)	Head of the Strategic Planning Office (UB1)
Departmental level	In the informal learning dimension	Head of Student Office (UA2)	Head of Student Office (UB2)
	In the formal learning dimension	Head of an academic department (UA3)	Head of an academic department (UB3)

three from each university. These held parallel hierarchical positions (at organizational and departmental levels) and dimensional positions (student affairs and academic) within departments (Table 10.1).

Interviewees were identified from decision makers at organizational and departmental levels of the universities. They were people with the richest information because, in their positions, they were familiar with both policies at the institutional level and different practices at various implementation stages.

In-depth semi-structured interviews were employed, with participants' consent, as a way to explore the self-perceptions, values, and attitudes of the leaders, within the boundaries of the research aims (Legard et al., 2003; Wertz et al., 2011). The interview data were analyzed using a grounded theory coding method. The data were repeatedly analyzed until no new themes and patterns emerged (Charmaz & Belgrave, 2007; Strauss et al., 1997). Various strategies were adopted to enhance the plausibility of the study, including a careful selection of interviewees; skillful data collection; sensitive and careful data analysis that let the data speak for itself; and triangulation of the data by cross-examining different stakeholders' account (Strauss et al., 1997; Wertz et al., 2011).

The data analysis involved three key stages: Initial/open coding for categorizing the data; axial coding for theming and patterning the data under each category (interview questions); and theoretical coding leading to theorization of the data represented by the findings based on comparisons among themes and patterns (Yin, 2003).

Findings

Definition of Brand

Interviewees understood and defined 'brand' in diverse ways according to the vertical hierarchical levels (university and department) within their institutions, and horizontal dimensions such as student affairs and academic departments. Their conceptualization of the term 'brand' or 'institutional brand' will become apparent in the paragraphs that follow.

University Image

The findings show that at the organizational level, 'brand' is defined as the university image to achieve university missions. The main professional task of the research participants UA1 and UB1 is to build a positive institutional image for their employers, the public, current and potential students and their parents, and partner universities.

UA1 described the university brand or image as a key or vital strategy in University A: "I think brand building is…building an image for the university. This is a very big deal out here."

UA1 also stated that a good university image was achieved by conveying an image of learning, with integrity and honesty in their communication with stakeholders through messages, "We do not only go outside to say how wonderful we are, but we present things that we do here…and (we) try to project an image [from] which people will believe that we are truly doing good work…".

UB1 described 'university image' as what is perceived by employers and the public, "*Students are told to dress properly, behave properly [during] internships in order [to create] a positive image in employers' eyes…*" and "*students are taught to behave properly, for instance, not to say any bad or impolite words in public transportation like busses, which is related to our university image, the brand.*"

Unique Identity

In the Student Office, the word 'brand' was defined as unique identity. Participant UA2 said, "*We are building a unique identity, brand, for example, a lot of students come to us for counseling, not because of emotional problems, (but) because they want to do better. So when they talk to students in other universities, they would say 'Are you crazy?' So I think that's a difference; we are more approachable in general.*"

UB2 explained: "So I think the brand, just the branding, is like this. Uniqueness, right. We are a unique SO, Student Office, and uniqueness in putting students' interests first…so our brand is a bit different from other universities' brands, [it] is that we are very people oriented, we transform people, we transform by means of education."

Brand Loyalty

The heads of the Student Office also defined brand as brand loyalty. UA2 stated that they had built brand loyalty with evidence, "*We are fully booked. Our counselors are fully booked throughout the summer. It's unbelievable; it's just the atmosphere*

here." UB2 expressed: "*We also promote further study, so alumni come back to the Institution to do their further professional development or for higher qualifications.*"

Reputation

In the academic dimension at the departmental level, according to UA3 and UB3, brand was firmly associated with '*reputation.*' They made efforts to build reputation among people in the academic field in the aspect of research, among students and their parents, employers in the aspect of teaching, and among the stakeholders who provide internal and external funding.

UA3 explained that they tried to do influential research to gain reputation and that "the brand is the name, the reputation, and how people perceive you in a society," and, "… we want to have reputation. People consider this is a group of good researchers, and this is a good department; employers consider the outputs of this department [to be] quite good…for example, in Hong Kong, how the parents consider our programs? In the academic field, how our paper is going to be published in international journal and be cited? How our colleagues [are] taking … academic society positions, like journal editors or associate editors, or the awards [they received]? I mean those are reputation."

Similarly, UB3 firmly rejected the word 'brand' and preferred the word 'reputation': "*don't call it a brand…*" and when confronted by the interviewer with the question: "So you hope to be recognized by what you do?" *UY3 replied: "Yes, precisely, precisely. And this is where branding annoys me because it's not always full of integrity … we are trying our best to build and maintain reputation. For instance, we are building a leading role in academia,"* and added, "*in addition to well-reputed research, reputation is also built on the well-being of students in society…therefore, brand is reputation about good researchers, the department and its outputs.*"

Core Values Boosted by Administrative Leaders

University-level leaders firmly stated that the shared values in their team management were "*to achieve the mission of our university.*" For instance, UA1 stated: "*How the university mission statement represents our common value, which is the core value … What is important is that you use your professional knowledge and your work to contribute to achieve the mission and goals.*"

UA1 explained: "I may have staff who have very strong beliefs in certain things, he or she can have their own opinions… after work, they can do whatever they want… but in my office, their job is to do what I tell them to do and it's pretty hard for them to have room to develop their own values so…the personal role or personal values…don't matter too much. We all are here to accomplish the university's goal," and “As a leader, my function is leading the team to achieve the university mission or goals with my job as a steer.”

Similarly, UB1 exclaimed: “*What are the core values in this university? … There is no set of guiding values. However, in the first Strategic Plan, there was a president, so proficient in Eastern and Western culture, then the guiding values were made at that time (pointing to the core values listed in the Strategic Plan),*” and, “*…then this one (the latest Strategic Plan), which does not have core values. Not any one written here, it's more outcome-oriented… (Therefore) well, in my mind, this organization actually [has] no uniformed value, but we follow the university mission.*”

In the Student Office, both UA2 and UB2 explained that their shared values were whole-person development, but with slightly different foci. For example, UA2 shared: “*Our core values have been established for over twenty years, which is whole-person development with student-centered approaches and the basic minimum level is a broad educational experience as the fundamental principle of planning and implementing all activities provided to students. We want students to have a very stimulating and inspiring educational experience here, a total educational experience, not just classroom studies and not just academic work. That is our basic core concept about our service.*”

Similarly, UB2 stated: “*Our university plays the role of grooming future leaders and future personnel provided to different fields. And our department in particular is playing this role in the all-round sense because we promote whole person development. It's a holistic view of our students' growth. It's not just forsake physical health, not just the academic growth, but also their mental health growth,*” and, “*I think the most important value is what I just mentioned. Whole person development is to have a social concern inside and outside campus. What I refer to [as] social concern is that they have genuine and real concern about the life, the wellbeing of the people living around us.*”

In the academic departments, the concept of ‘core values’ involved academic freedom with constraints. For example, UA3 stated: “*If you want to say, ‘Do you want to see those core values?’ the freedom of teaching and the freedom of research could be sort of our (laughs), if you want to say, that's core values… Freedom of teaching, freedom of research. This was embedded in staff's daily jobs to keep their basic passion and interest, but with conditions… What I'm trying to say is that it won't help you to generate first-rate … research. But it is just to keep you to do research in your interest. You are doing research [on] topics you must be passionate [about], and you must be interested in. Without those things, how can you do them*?”.

Similarly, UB3 explained: “*It's how the community sees education, the functions have been given, I mean through the government…we have been given various jobs to do, our mission has been prescribed first to some extent; but I think we also have a bit of freedom to identify other areas we would like to. I think funding is a very strong way of deciding the functions of an institute …*”.

Approaches to Facilitate Core Values Shared in Brand Building

The findings show the university-wide brand building processes are performed as a continuous cycle, in a nonlinear way, which is similar to the typical organizational management cycle, i.e., planning, implementation, evaluation and feedback (Armstrong, 2009; Drucker, 2008). For instance, the organizational level leaders collect materials for designing official documents from different functional departments, through internal communications. UA1 uses this to design communication media taken to education exhibitions or overseas universities to recruit international students. Subsequently, questions raised by students, parents, and partner universities are shared with relevant departments for their reference and consideration for further improvement.

UB1 collects ideas from different departments to design university strategic plans and branding strategies. Then, they implement the strategic plan and collect views from external parties, e.g., employers about their graduates. They also care about the image of the university as conveyed to the public by their current students. Feedback from various parties would be received, with even the president warning relevant departments about the impact of any negative comments.

The common linking point of branding strategies at different hierarchical levels and functional dimensions is the university mission. In other words, the ultimate goal of the brand building processes at both university and departmental levels (student affairs and academic) is to achieve the university mission, implemented through diversified core value-based branding strategies.

The core values are emphasized and facilitated through sharing among staff in the brand building processes at different hierarchical and departmental levels (student affairs and academic). For instance, in University A, UA1 stated that they do everything to achieve the university mission in both internal and external communications. In addition, the core value to achieve the university mission is boosted by sharing among staff in the administrative management. For instance, these individuals act as role models, setting aside their own personal values at work and focusing only on achieving the university mission at all times. Their subordinates are required to work in the same way. Within the workplace, the key focus is on achieving the university mission, regardless of the personal values colleagues may adopt outside the work.

In University B, UB1 underscored the influence of the president in leading staff to achieve the university mission. According to him, at the moment, "*there is no set of core values*" connected to the university mission. He shares that it is hard to make everybody follow the strategic plan in a democratic society that promotes freedom. Nevertheless, if the president constantly highlights their mission, in speeches and official documents, staff can be influenced to follow it.

In the Student Office, according to UA2, the core value of "whole-person development with student-centered and whole educational philosophies and approaches" directs the planning of programs and services by embedding the core values in the minds of staff. For instance, staff are usually open to work overtime in order to help students. In program implementation, they try their best to support students, such as counseling on approaches to write scholarship applications, providing feedback on unsuccessful applications, and helping those who succeeded to plan how to use the scholarship properly.

UA2 also positions himself as a role model among his subordinates. For example, he often talks to students, takes part in students' reading club, leads students on overseas trips and supervises their learning before, during, and after the trip. Furthermore, he supports human resource management by encouraging his staff to attend international conferences to develop their knowledge of whole-person education. He also regards the evaluation and feedback of external parties to be important. For example, he shared the praise offered by an outside accreditation team: "*Hey, you guys are really student-centered.*"

In University B, according to UB2, the core value of "whole-person development for social concerns with student-centered philosophies and approaches" drives the brand communication. For example, human factors or images are always used in their media to establish and reinforce an emotional link between the students and the institution. Moreover, in their daily work, staff are required to follow the core values, with the departmental mission and vision. To achieve this, human resources recruit professionals including those with a background in social welfare, doctoral level education, or leadership training.

At the academic level, UA3 underlined the institutional policy that staff are required to deliver academic outputs impacting both global and local societies in relevant fields, and to contribute to producing students as leaders at work after graduation, or at least as well-behaved citizens.

UB3 leads staff to pursue reputation through excellent research outputs and teaching results. This should reflect core values involving integrity in teaching and research activities; social justice embedded in course content; and values of transparency, honesty, social justice, and inclusiveness in departmental administration. Moreover, similar to UA3, the importance of academic freedom is embedded in staff's mind without having to be spelt out in their daily work.

Discussion and Conclusion: Institutional Brand Construct and University Sustainability

The term sustainability evokes, on the one hand, a minimum attitude and action required to survive and, on the other hand, a maximum growth without grave impacts on the society and environment. The delimitations of sustainability discourse are thus rather fuzzy. However plausible such discourse may be to higher education institutions today, there are clear signs that many universities not only try to survive but they make huge efforts to thrive with ambitious developmental goals (Park & Savelyeva, 2022; Savelyeva & Park, 2012; Savelyeva, 2022).

This chapter discussed a specific aspect of sustainability of higher education—institutional brand construction. It aimed to investigate how brand is defined by administrative leaders, what shared (core) values are promoted among staff in the brand building processes by administrative leaders, and how the university internal brand commitment is likely to be built.

Leaders at both university and departmental levels (student affairs and academic) in this study adopted some core values that permeate all brand building processes. These core values are implemented as shared values and integrated in their daily work. Brand building processes involving shared values among staff enhance commitment to the brand contribute to the sustainability of the institution. In addition, staff who share brand values tend to perform as brand ambassadors in their delivery of professional, friendly, and responsive services provided to their stakeholders, thus sustaining the economic and social development of the organization (Vallaster & Lindgreen, 2013).

The brand building processes with core values, at either university level or departmental levels, involve internal brand commitment, which supports university economic and social sustainability. However, a strongly consistent and university-wide core values may not exist or may not be essential in the brand building. In this regard, the present study can neither support nor refute the perceptions of the research participants due to the lack of formal documents from the senior management to triangulate.

University-wide brand building processes involve creating links between a common force, i.e., university missions, and diversified core value-based branding strategies at the university level and departmental level. The findings suggest that the values embedded in university missions, arguably more as a philosophy, exert influence on their branding strategies. In addition, at both whole-university and departmental levels, institutional values significantly influence the processes of management cycles of planning, implementation, evaluation and feedback.

Hence, the core value-based brand building processes within different units go hand in hand with brand commitment building by staff themselves. At the university level, embedding some core values in the university mission, as pointed out by a senior manager, is not neither easy nor straightforward task. Guiding all staff in sharing common values in their daily work, which can thereby enhance their contributions to the university's sustainability, is likely to remain as an institutional challenge.

Hong Kong universities often spell out their branding strategies and persuade/push their staff to adhere to the intuitional vision and mission with the conviction that such actions will lead to their sustained growth. In the current environ of 'brave new world' of fast globalization cum neoliberal managerialism, however, the question remains whether such managerial actions for an endless growth will eventually end up clashing against the very sustainability of university, which is after all a social institution founded for public education (Ho, 2022). Here lies the main limitation of this research, which all at once indicate the direction for our future research that could be more critical toward exacerbating university managerialism, particularly in the local socio-cultural context of Hong Kong.

References

Aaker, D. (1996). *Building strong brands*. Free Press.

Aaker, D. A. (2004). *Brand portfolio strategy: Creating relevance, differentiation, energy, leverage, and clarity*. Free Press.

Altbach, P. G., Reisberg, L., & Rumbley, L. E. (2009). *Trends in global higher education: Tracking an academic revolution*. UNESCO 2009 world conference on higher education.

Armstrong, M. (2009). *Handbook of performance management: An evidence-based guide to delivering high performance*. Kogan Page.

Aula, H. M., Tienari, J., & Wæraas, A. (2015). The university branding game: Players, interests, politics. *International Studies of Management & Organization, 45*(2), 164–179.

Balmer, J. (1995). Corporate branding and connoisseurship. *Journal of General Management, 21*(1), 24–46.

Balmer, J., & Gray, E. (2003). Corporate brands: What are they? What of them? *European Journal of Marketing, 37*(7/8), 972–997.

Barratt, M., Choi, T. Y., & Li, M. (2011). Qualitative case studies in operations management: Trends, research outcomes, and future research implications. *Journal of Operations Management, 29*(4), 329–342.

Borland, H. (2009). Conceptualising global strategic sustainability and corporate transformational change. *International Marketing Review, 26*(4/5), 554–572.

Boulding, K. E. (1956). General systems theory: The skeleton of science. *Management Science, 2*, 197–208.

Camilleri, M. A. (2015). Valuing stakeholder engagement and sustainability reporting. *Corporate Reputation Review, 18*(3), 210–222.

Chapleo, C. (2007). Barriers to brand building the UK universities? *Journal of Nonprofit and Voluntary Sector Marketing, 12*(1), 23–32. https://doi.org/10.1002/nvsm.271

Charmaz, K., & Belgrave, L. L. (2007). *Grounded theory*. The Blackwell encyclopedia of sociology.

Cheng, Y. C., Ng, S. W., Cheung, C. K., Choi, P. L., Tang, Y. F., Yuen, Y. M., & Yuen, W. W. (2009). *A technical research report on the development of Hong Kong as a regional education hub*. Abstract retrieved from http://scholar.googleusercontent.com/scholar?q=cache:YnC0073gHtgJ:scholar.google.com/&hl=zh-TW&as_sdt=0&as_vis=1

Davis, S. M. (2002). *Brand asset management: Driving profitable growth through your brands*. Josey Bass.

De Chernatony, L. (1999). Brand management through narrowing the gap between brand identity and brand reputation. *Journal of Marketing Management, 15*, 157–179.

Doyle, T., & Brady, M. (2018). Reframing the university as an emergent organisation: Implications for strategic management and leadership in higher education. *Journal of Higher Education Policy and Management, 40*(4), 305–320.

Drucker, P. F. (2008). *Management*. Collins.

Eisenhardt, K. (1989). Making fast strategic decisions in high velocity environments. *Academy of Management Journal*.

Gray, B., Fam, K., & Llanes, V. (2003). Branding universities in Asian markets. *Journal of Product & Brand Management, 12*(2), 108–120.

Ho, O. (2022). Laozi for Higher Education on Sustainability: Its principles, logic, and holistic relevance. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 69–88). Springer. http://doi.org/10.1007/978-981-19-5104-6_5

Jia, N. (2014). *Application of core values in the brand building processes in HEIs: Two cases in Hong Kong*. Doctoral dissertation.

Johnson, G., & Scholes, K. (2002). *Exploring corporate strategy* (6th ed.). Harlow.

Keller, H. (2003). Socialization for competence. Cultural models of infancy. *Human Development, 46*(5), 288–311.

Keller, K. L., & Lehmann, D. R. (2006). Brands and branding: Research findings and future priorities. *Marketing Science, 25*(6), 740–759.

Legard, R., Keegan, J., & Ward, K. (2003). In-depth interviews. *Qualitative Research Practice: A Guide for Social Science Students and Researchers, 6*(1), 138–169.
Lewison, D., & Hawes, J. (2007). Student target marketing strategies for universities. *Journal of College Admission, summer*, 15–19.
Linnenluecke, M. K., & Griffiths, A. (2010). Corporate sustainability and organizational culture. *Journal of World Business, 45*(4), 357–366.
Maon, F., Lindgreen, A., & Swaen, V. (2009). Designing and implementing corporate social responsibility: An integrative framework grounded in theory and practice. *Journal of Business Ethics, 87*, 71–89.
Maragakis, A., & Van den Dobbelsteen, A. A. J. F. (2013). Higher education: Features, trends and needs in relation to sustainability. *Journal of Sustainability Education, 4*.
Melewar, T., & Akel, S. (2005). The role of corporate identity in the higher education sector: A case study. *Corporate Communications: An International Journal, 10*(1), 41–57.
Naudé, P., & Ivy, J. (1999). The marketing strategies of universities in the United Kingdom. *International Journal of Educational Management, 13*(3), 126–134.
Park, J. (2009). *Leadership of recognition: A philosophical study*. VDM Verlag Dr. Müller Aktiengesellschaft & Co. KG.
Park, J., & Savelyeva, T. (2022). An interpretive analysis of the 2030 sustainable development goals in Hong Kong public universities. *Asia pacific education review*. http://doi.org/10.1007/s12564-022-09777-2
Savelyeva, T. (2022). Conclusion—Towards a general framework of sustainable tertiary education. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 231–236). Springer. http://doi.org/10.1007/978-981-19-5104-6_14.
Savelyeva, T., & Park, J. (2012). Ecologism and complexity of campus sustainability discourse. Sustainable development at universities: New horizons. In W. Leal (Ed.), *Environmental education, communication, and sustainability* (Vol 34, pp. 183–192). Peter Lang.
Schroeder, J. E. (2017). Corporate branding in perspective: A typology. *European Journal of Marketing, 51*(9/10), 1522–1529.
Strauss, A., & Corbin, J. M. (1997). *Grounded theory in practice*. Sage.
Sulkowski, L., Seliga, R., & Wozniak, A. (2019). Image and brand awareness in universities in consolidation processes. In *International conference on applied human factors and ergonomics*, (pp. 608–615). Springer.
Teh, D., & Corbitt, B. (2015). Building sustainability strategy in business. *Journal of Business Strategy, 36*(6), 39–46.
University Grant Committee. (2004). *Hong Kong higher education, to make a difference, to move with the times*. University Grants Committee.
Vallaster, C., & Lindgreen, A. (2013). The role of social interactions in building internal corporate brands: Implications for sustainability. *Journal of World Business, 48*(3), 297–310.
Vincent, J., Lee, J. W., Hull, K., & Hill, J. (2020). Where legends are made: A case study of an advertising and branding campaign at the University of Alabama. *International Journal of Sport Communication, 1*, 1–32.
Wæraas, A., & Solbakk, M. (2009). Defining the essence of a university: Lessons from higher education branding. *Higher Education, 57*(4), 449–462.
Wertz, F., Charmaz, K., McMullen, L., Josselson, R., Anderson, R., & McSpadden, E. (2011). *Five ways of doing qualitative research*. Guilford Press.
Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Sage.
Ying, A., & Zhu, J. (2007). Research on influence of the congruence of real/ideal consumer self-concept and brand personality on high education consumer brand preference. *Application of Statistics and Management*, *26*(6), 971–976.

Nan Jia is a multidisciplinary researcher across Business, Management, and Education. She completed her Bachelor of International Trade, Master of Marketing, Doctor of Education, and PGDE in different regions and nations. She published academic papers and held seminars sharing her research findings on performance of core values in brand management of higher educational institutions (HEIs), to join the voice for a well-balance development over pragmatic marketing strategies and classic education conventions. The passion for research in this area further leads her to focus the context in Hong Kong universities over values performed in their brand management.

Jae Park reads at the Education University of Hong Kong. His research interests are in sociology and philosophy of education. He recently published in *Comparative Education Review*, *Educational Philosophy and Theory*, *International Studies in Sociology of Education*, *Comparative Education*, and *Ethics & Behavior*. He serves as the President of the *Comparative Education Society of Hong Kong*. He is the Editor-in-Chief of the *International Journal of Comparative Education and Development* and Editorial Board member of the book series 'Educational Leadership Theory' for Springer.

Part IV
Future Developments

Chapter 11
Vocational cum Pedagogical Tertiary Education and Sustainable Development in Russia

Galina Sikorskaia and Tamara Savelyeva

Introduction

We live in an increasingly intertwined and interdependent world. Global and local humanitarian crises, environmental pressures, and political and socio-economic downturns have direct impacts on the state, society, and individual lives. Rapid globalisation, digitalisation, and efforts to be a carbon–neutral economy are generating previously unknown industries and labour markets, such as digital technology, artificial intelligence, and nanoscience, which require highly professional teacher preparation for the Technical and Vocational Education and Training (TVET) sector (Cedefop, 2017; OECD, 2021).

The United Nations' Sustainable Development Goals (UN SDGs) echo these global concerns in its SDG 4—*Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*—where TVET is identified as a pivotal force for advancing sustainable development. The SDG4 assigns to TVET an important role in sustainable transformation in its Target 4.4 (UN, 2015), entrusting the sector with a global mission to "substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship" (UN, 2015, p. 19). The TVET's leading role in sustainable development was first noted in the 2012 Shanghai Consensus (UNESCO, 2012) which resulted from a UNESCO international TVET meeting in China. The Shanghai Consensus transformed the vision of TVET from being a mere respondent to ever-changing market demands to becoming a main contributor to inclusive education and sustainable development. A score of academic research (OECD, 2021; Tucker, 2019) embraced this new vision with an international

G. Sikorskaia
Russian Academy of Natural Sciences, Ekaterinburg, Russia

T. Savelyeva (✉)
Hong Kong Institute of Education for Sustainable Development, Hong Kong SAR, China
e-mail: tvs3@cornell.edu

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_11

discourse of TVET as an instrumental process that radically changes people's lives, enhances communication across cultures, creates opportunities, and accelerates time, change space, and the humanity at large.

The demand for quality TVET education and preparation of TVET teachers, who play an indispensable role in nurturing the manpower for sustainable development, is crucial (OECD, 2021; Tran & Le, 2018). In order to meet the challenges of sustainable development and fulfil its role of being a leading contributor to international agendas, TVET requires a systematic enhancement of quality and capacities of its professional teacher preparation institutions, as well as in-depth investigation of their structures, processes, and advances. Although the SDGs signalled a clear global call for substantial enhancements of TVET structures and the increase in investments, the issue of quality of vocational education and teacher preparation was excluded from the international agenda.

Russia has a long tradition of having a formal, education-based[1] Vocational and Technical Education (VTE) system (an equivalent of TVET or VET in other countries), which has played an indispensable role in nurturing the necessary manpower to support the economic growth of the Russian society for over 300 years.[2] For the purpose of our chapter, we define VTE as a formal education system that aims at building students' professional knowledge, skills, and competencies necessary for specific vocational occupations, businesses, and industries. A Higher Vocational-Pedagogical Education (HVPE) is an integrated part of the Russian VTE system, which aims at cultivating quality professional teachers and instructors for the VTE institutions.

Despite decades of education system reforms, which have been affecting all levels and fields of the Russian educational system, the place of the HVPE in the core educational structure[3] remains unchanged. The established VTE's infrastructure, tradition, and academic and methodological background ensure the availability of continuing education through the life of every Russian citizen (UNESCO UIL, 2020). The HVPE's role in sustainable development and lifelong learning is particularly relevant in the context of the perpetual socio-economic spins, that have been ongoing in Russia after the break of the Soviet Union and the country's turn on tracks of the global market economy in the 1990s of the past century. The Russian VPE research discourse, however, refrains from discussions of sustainable development and keeps its focus on the practical issues of increasing prestige of the field and student enrolments in the VTE colleges; responding to the economy's high demand for workers; ensuring quality of the VTE college graduates; and improving employee-employer relationships (Fiodorov, 2001; Dorozhkin & Chernoskutova, 2020; Oleynikova & Muravyova, 2009). Although there is a significant body of

[1] Tucker identifies three types of global VET systems: Educational, Apprenticeship, and Hybrid.

[2] An official timeline of the Russian formal VTE system starts from an opening of the Vocational School of Mathematics and Navigation Sciences in St. Petersburg in 1701.

[3] Russian education system includes two levels of education: (1) General Level: preschool, primary, elementary, and secondary education; (2) Professional Level: vocational education, vocational training, higher/tertiary, and post-graduate education.

research describing historical accounts and chronological development of the Russian VPE system (Oleynikova & Muravyova, 2009), the studies investigating the HVPE's transition to a sustainable professional teacher training system under the market economy are lacking.

This chapter aims to (1) provide a historical and policy overview of the Vocational-Pedagogical Education (VPE); and (2) discuss the VPE's strategic factors for sustainable development, resulting from a qualitative case study of the Russian State Vocational-Pedagogical University. The chapter starts with an introductory positioning of the Russian VTE in the international context of sustainable development and proceeds with an overview of the Russian VPE system. Using a case study method, the chapter examines the Russian State Vocational-Pedagogical University, one of its kind tertiary VPE institution in Russia. Next the chapter discusses the research findings and resulting factors, which contribute to sustainable development. The concluding remarks dissect the outcomes of the VPE's role in sustainable development, as well as policy implications.

Vocational-Pedagogical Education in Russia

A long tradition of formal Vocational-Pedagogical Education (VPE) has its origin in the Tsarist, pre-socialist Russia of the XIX century.[4] At the beginning of the XX century, Russia had an advanced VPE system of one- or two-year professional teacher preparation courses, offered in St. Petersburg at the platforms of the existing tertiary institutions. After the 1917 socialist revolution, a new regime utilised the methodological and pedagogical works of their Tsarist predecessors and built a VPE system that suited new realms and ideologies of the Soviet Russians (Fiodorov, 2001; Fedorov & Tretyakova, 2017).

An idea of expanding the VPE training, launching formal VPE institutions, and designing curricula that combines vocational and pedagogical training across the state of Russia originated in Petrograd (currently St. Petersburg) in the 1920s (Fiodorov, 2001; Fedorov & Trityakova, 2017). The demand for high-quality professional teachers, who could teach a growing number of proletariats at the VPE colleges, was driven by the economic and political needs of the post-war, post-revolutionary Russia. This led to ten years of pilot experiments with new VPE structures and curricula. To speed up the reform of the VPE, the Soviet government established a technological unit under the Professional Education (Ministry) and put it in charge of the design, development, and implementation of the VPE's new structure and content in 1920. In the same year, the newly established Technical-Pedagogical Institute offered its first formal VPE curriculum, which included a wide range of technical subjects, as well as pedagogical and psychological disciplines (Fiodorov, 2001). The Higher Pedagogical Sciences Courses (HPSC), a structure that replaced the Institute in 1921,

[4] Fiodorov and Tretyakova refer to the 1892 "Guidelines for preparing teachers of the special subjects and practical sessions for secondary and general technical colleges".

updated the structure and curriculum by allocating over three quarters of its VPE content hours to pedagogical and psychological sciences. At that time, these and other VPE launching efforts across the country were unsuccessful due to economic, political, and social difficulties of the new Soviet country. Yet, these first attempts paved the following foundation for the VPE system, which has been in place for over 100 years: higher vocational-pedagogical institutions; VTE branches within higher polytechnic institutions and polytechnic colleges for students, who choose to obtain VPE qualifications; industry/service-bound VTE centres, which offer professional development and certification courses for professional teachers with a VPE degree; and state or private VTE centres, which offer courses for vocational masters and instructors.

A historical timeline of the VPE evolution in Russia is inconsistent, as all VPE institutions were closed down in 1937 due to political, economic, and social reasons. The VPE was revived during the World War II and about ten years after the wartime, in 1943–1957, when the Soviet government opened a system of Industrial-Pedagogical Colleges to increase the quality of vocational teaching. The Colleges' VPE programme admitted workers with a secondary school diploma, high vocational qualifications, and teaching abilities. The programme covered general, technical, specialised, and pedagogical subjects, as well as pedagogical, industrial, and pre-diploma (occupational) field practices. At the same time, tertiary institutions re-opened their pedagogical sciences branches and units and offered VPE programmes for the qualified students and in-service professional teachers. The 1958 reform of the Russian educational system re-organised VTE and unified all Vocational-Technical Colleges, which became the mean for obtaining a general (secondary) education diploma for junior secondary school graduates and adults with 8 years of schooling. In the 1960s-1970s, the VPE was delivered through the system of Industrial-Pedagogical Colleges, Pedagogical Branches of tertiary institutions, and specialised Engineering-Pedagogical Faculties at universities.

In their study of the Russian VPE system, Fedorov and Tretyakova (2017) reported that shortly after the break of the Soviet Union in the 1990s, the VPE structure included two Engineering-Pedagogical Institutes, 38 Engineering-Pedagogical Faculties in universities, 68 Industrial-Pedagogical Colleges, and a state-wide network of Professional Development Institutes. Thirty years after, Russian VPE has been functioning as a VTE's autonomous field of research and practices that continuously serve the economy and empower professional teachers (Fedorov & Tretyakova, 2017). The diverse system of VPE has evolved out of its original 1920 prototype, and it includes specialised vocational-pedagogical tertiary institutes, pedagogical branches in the industrial and technical universities, multi-disciplinary vocational-pedagogical colleges, and vocational training centres.

Initially, Russian VPE occupied an intermediate position between pedagogical and engineering education. However, this intermediate VPE structure created a systemic gap between pedagogical and engineering/vocational educations: polytechnic universities and the VPE institutions lacked pedagogical resources, and pedagogical institutions had no industrial knowledge. A new VPE direction—full integration of vocational and pedagogical sciences—aimed at the centralised and systemic closure of the vocational-pedagogical educational gap in order to increase the quality of the VPE teacher preparation system. In line with this, the Soviet government established a new tertiary structure, The Sverdlovsk Engineering-Pedagogical Institute in 1979 (RGVPU, n.d.). It was intentionally located in the Ural region, one of the most industrialised areas of the country. Since the eighteenth century, the Ural region carried the tradition and had the capacity for educating professional teachers, masters of industrial training, and mentors for workers of the Ural factories. The VPE tertiary institutions offer Bachelor and Master degree level programmes, as well as postgraduate degrees of Doctoral Candidates and Doctors of Pedagogical Sciences to highly qualified specialists from all vocational occupations. The graduates of the HVPE are equipped to teach across age groups, from secondary school graduates to young workers and adult learners. The HVPE strives to educate round-shaped, well-prepared industrial or service professionals, who possess knowledge and skill of pedagogical and psychological sciences, age physiology, sociology, and educational methodology for a specific occupation (RGVPU, n.d.).

In addition to its mission of providing all VTE sectors with high-quality professional teachers, tertiary VPE institutions serve the Russian society in a number of ways. The VPE acts as an agent of lifelong learning (UN, 2015), as it equips people of different ages with professional competencies, such as the use of specific equipment, technologies, hardware, software, and new professional tools. In the same spirit of continuous education and sustainable development, the VPE allows industry/service workers to obtain and upgrade vocational qualifications by categories, classes, and occupations.

The evolution of the VPE system in Russia sets a context for the qualitative case study of the Russian State Vocational-Pedagogical University (RSPU), the first and currently the only tertiary institution in the country that prepares professional teachers for the VTE sector.

Methodology

In order to meet the goal of the study and derive strategic factors for sustainable development of the VPE in Russia, the single-case descriptive study employed thematic analysis of (1) fifty in-person, unstructured interviews (Creswell & Poth, 2018) with RSPU administrators, faculty members, and professionals involved in VPE projects, who were involved in the case and attended the *XIX and XX International Conferences of VPE Innovation and Development* in Ekaterinburg, Russia; and (2) analysis of related VPE documents and artefacts between 2015 and 2018. The co-author of this chapter, Prof. Galina Sikorskaia, served as the principal investigator of the study and was employed at the RSPU at the time of the data collection. The study on the factors contributing to VPE sustainability was supported by the Ministry of Education of the Russian Federation and conducted using the resources of the RSPU's *Education and Research Center for Innovations in Education.* The co-author had an insightful knowledge of the RSPU due to her long service as a faculty member and high administrative official. Along with data triangulation, the co-author's close affiliation with the case in study and engagement with its affairs ensured full and ungated access to the data and served as a credibility check for the study's quality procedures.

A Case of Tertiary VPE: Russian State Vocational-Pedagogical University

The Russian State Vocational-Pedagogical University (RSVPU) is a federal tertiary institution located in Ekaterinburg in the Ural region of Russia. Founded as a State Engineering-Pedagogical Institute in 1979, the RSVPU is the only tertiary institution in the country, which prepares VTE teachers and masters of vocational training and offers undergraduate, certification, and post-graduate VPE programmes. The RSVPU's structure includes international and regional branches, VPE centres, and teaching and research institutes. The University headquarters the *VPE Learning Methodology Association*, which includes 135 tertiary institutions and 90 colleges as its members.

The guiding mission of the University, "creating an individual trajectory of education for continuing professional, career and personal growth" (Romantsev, 2009, p. 21), was conceptualised by the former RSVPU's Rector,[5] Member of the Russian Academy of Education, Prof. Gennady Romantsev in the early 1990s. Prof. Romansev's visionary leadership ignited a new innovative system of a multidimensional, flexible preparation of educated workers with a university degree, and he provided this idea with statutory and instructional support. The idea to equip all RSVPU graduates with both pedagogical and technical knowledge, vocational working hands-on skills, competencies, and vocational qualifications under a roof of the tertiary institution was unique. New leadership direction towards ideas of lifelong learning originated the design and implementation of a multidimensional 'worker education' university system, which would utilise and provide students of all ages and educational levels with opportunities to receive a university degree with a vocational qualification. This new tertiary system[6] of a dual qualification degree merged theoretical and practical knowledge of the vocational and pedagogical subjects with relevant practical experiences. It had the potential to increase the sustainability of the Russian VPE system, raise the VPE's image, make it attractive to youth, and ensure smooth VPE transition to a new market economy (Romantsev, 2009).

Implementation of this ground-breaking idea required the mobilisation of both industrial and pedagogical resources, as well as innovative curricular design, which

[5] A position of Rector in European universities is equivalent to one of as University President.

[6] In the 1990s, Russian education degree system was not yet aligned with international model of Baccalaureate, Masters, and Doctoral levels.

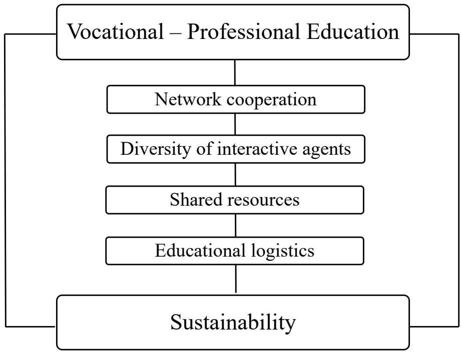
could bridge pedagogical and vocational contents and methods for specialised industries[7] in accordance with the federal education standards. Following the University mission, Romantsev established an *Institute for Workers' Education*, which offered compulsory vocational multilevel qualification training programmes for the University's undergraduate and post-graduate students. In the spirit of lifelong worker's education, the University launched the *Preparation of International Qualifications for Craftsmen and Entrepreneurs* project in 1993. In this project, the international Russian-German team jointly designed a curricular VPE programme and successfully piloted it in Germany, Russia, Ukraine, and Kazakhstan. The five years of the joint efforts created a unique, internationally transferable model of the VPE, which was also integrated in VTE colleges' teacher preparation programmes across the country (Romantsev, 2009). As an outcome of the RSVPU's innovative policies and initiatives, the University team developed theoretical and methodological foundations of a state-wide VPE standardisation, moving from an old skill-based VPE system towards a competence model. However, despite the initial success of these innovative ideas and initiatives, the University failed to inform state and federal policies. As a result, the RSVPU discontinued the implementation and further development of these unique VPE undergraduate and post-graduate programmes due to transitional socio-economic situation in the country.

Results and Discussion

The research team carefully investigated the case in order to describe strategic factors, which foster sustainability of the VPE system and programmes by reaching their long-term objectives and informing the state educational policies. In the context of this chapter, we define sustainability of an education system as a continuous process of a dynamic knowledge building, that leads to deeper understanding of the societal processes and generates possibilities for resolving and finding solutions to emerging issues with regard to the interests of all members of the society in the short- and the long-term perspectives. By factor, we imply a driving force or main condition for the policy implementation process. The research analysis of the Russian VPE system under transitioning socio-economic conditions revealed the following four factors of VPE sustainability (Fig. 11.1): (1) network cooperation; (2) diversity of interacting agents; (3) shared resources; and (4) educational logistics.

[7] At the time of the research, a list of VPE segments followed the 2014 Federal State Educational Standards and included 18 industries (metallurgy, polygraph, agriculture, information technology, construction, service, etc.).

Fig. 11.1 Factors of Vocational-Professional Education sustainability



Factor One: Network Cooperation

The thematic analysis of the case, interviews, and artefacts unfolded a detailed understanding of the VPE network cooperation as a type of resource and knowledge sharing among the organisations involved in the VPE activities, and the participating users of the VPE educational platforms, structures, and services, that allow to implement VPE programmes in different economic, industrial, and service sectors, while providing students with quality guidance and the means for professional growth and self-orientation. The research revealed that the specifics and quality of the VPE network cooperation are complex and subjected to the conditions of the transitional economy and its changing demands for the workforce. This finding supports Tucker's (2019) statement, which summarises a new direction of the SDGs-oriented vocational education research: "the TVET system you need depends on the kind of economy you want" (p. 1). This direction of academic put VPE in a position of a powerful economic player, rather than a low educated, mostly manual, service provider to the economy. The study showed that, in a context of programme implementation, VPE network cooperation means fostering students' learning while using the resources of multiple organisations engaged in the VPE activities. This finding enriches the classic postulates of a network organisation theory (Cummings, 2008; Podolny & Page, 1998) by shifting its centrality to individual learning experiences of the network cooperation agents. At the systemic level, the research suggested that the quality of the VPE network cooperation depends on the following features: clearly stated unifying goal of a specific project, freedom to participate and independence of everyone, who is involved in the cooperation, pluralist views of project leaders, voluntary affiliation, and level of access of the networking organisations to resources, their organisational status, and ability to create educational opportunities (Fig. 11.2).

This finding resonates with the features of the managerial organisational network model (Aguinis et al., 2011) and allows to move the level of discussion to the conceptual level. The features of the educational network cooperation, as it appears in the study, can be connected with the Habermas' (1991) liberal principles of the

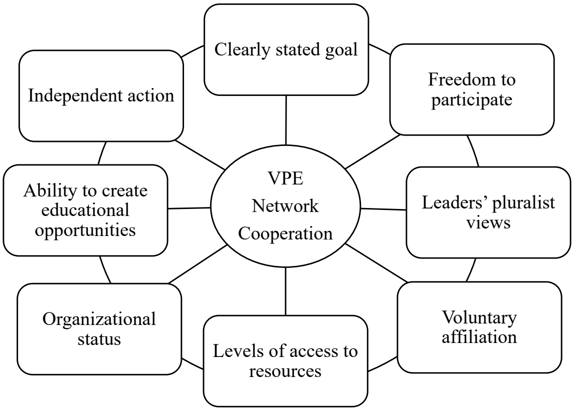


Fig. 11.2 Network cooperation features of the tertiary vocational-pedagogical education project

public sphere: equality and willingness to participate, individual freedom, and possibility to express plural opinion/debate. Interpreting the results with a conceptual lens highlights the sustainability of the VPE system as a complex nonlinear process. Although strength of the managerial network cooperation features derived from our data analysis seemed to be not sufficient, the liberal and public aspects of the cooperation set a momentum for its sustainable development that had a transformational impact at an individual rather than community or system levels. Mapping this finding against the multidimensional VPE Network Cooperation Model[8] (Akimova et al., 2014) showed that the most acute issues were associated with development of the VPE regional cluster in the Urals. A weak link between VTE institutions and local industries/businesses has disconnected the University's VPE efforts from the actual needs of the local employers. At the same time, steep downtimes of the transitional market economy in the 1990s stagnated the overall economic production in the country, which slowed down the VPE processes. Yet, the cluster approach to VPE network cooperation between industries, businesses, and VTE institutions significantly increased participant's efficiency and their interactions by engaging individual students with local employers. These localised sustainable network interactions between industries, businesses, and students, who represented the end line of the RSVTU VPE's network cooperation, received limited institutional attention. In the research field, a dominating VTE discourse on globalisation and internalisation (Tran & Le, 2017, 2018; Tucker, 2019) also left localised VTE studies out of its scope. The study identifies a sustainable connection between individual VPE students and industries that suggests a shift of VTE research epistemological focus to the local level of VPE implementation. The vast body of research on network organisation and cooperation (Chuchkevich, 1999; Cummings, 2008; Podolny & Page, 1998) has been generated by advancing globalisation and new possibilities presented by information technologies (Savelyeva & Park, 2022). The results of this

[8] A simplified version of the VPE Network Cooperation Model includes the following dimensions: level of cooperation, form of cooperation, profile of cooperation, direction of cooperation, methods of cooperation, mechanisms of cooperation, and agents of cooperation.

study support organisation researchers (Kilduff & Tsai, 2003), who use a multilevel approach in their analysis of the network's structures and their dynamics. Our findings supported Kilduff and Tsai's (2003) micro–macro approach to network cooperation and its description as "the ways in which networks of relationships at one level are embedded within and articulate networks at other levels" (p. 66). The study revealed a notion that VPE educational network cooperation depends on individual progress of each person included in the network; yet, this progress is not guaranteed by mere interactions. This specific characteristic and meanings of the VTE network cooperation responded to research conceptualisations (Chuchkevich, 1999) that centre quality and value of an educational organisational network cooperation at an individual level of involvement.

Factor Two: Diversity of Interacting Agents

The diversity of interacting agents appeared as an important factor of VPE sustainable development. Along with the educational institutions and industrial/service partners, the RGVPU programmes involved a variety of VTE associations or independent VPE-related organisations, which acted as strategic structural elements, supported the VPE system, and contributed to the implementation of the programmes and their effectiveness. A spatial analysis (Creswell & Poth, 2018) of the distribution of VPE organisational agents, which conducted VPE trainings and were involved in the RGVPU initiatives in the Urals, showed an established network of operating regional VTE, business and educational management associations, independent organisations, and training institutions. They included consortia, corporate universities, training centres, educational technical parks, resource centres, centres of working professions, institutions of additional vocational training, centres of science and education integration, and public centres of innovative resources (Fig. 11.3).

Despite their diverse structure, legal status, and level of educational services, all these organisational agents had one common goal: to provide quality VTE for employees and employees. The study showed that while striving to achieve the common goal, the diverse organisational agents and VPE institutions could successfully meet not only educational, administrative, and marketing objectives, but also achieve scientific purposes, as well as address the social needs of the regional community.

The VPE institutions acted at the higher level of VTE structural hierarchy, igniting the innovation, guiding the processes, and initiating participatory action (Chevalier & Buckles, 2019) in the arena of VPE programme implementation. Together with the voluntary participants of this diverse group of interacting organisational agents, the RSVPU research centre has developed a visual chart, representing the specifics of the innovation implementation process to guide the VTE management and self-organisation processes in terms of network cooperation (Davydova et al., 2012). Diversity of the organisational agents involved in the VPE initiatives, their in-depth community engagement, and resulted participatory action ensured the sustainable

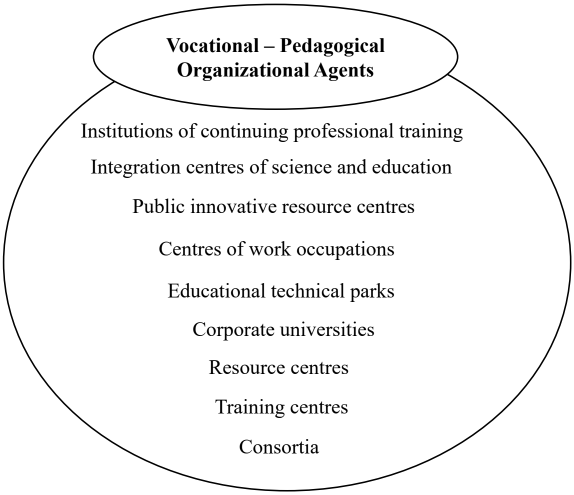


Fig. 11.3 Vocational-pedagogical organisational agents

development of the VPE initiatives in the Ural region. Another important structural product related to the diversity factor of VPE sustainable development was an emergence of the innovative learning environment, a virtual cloud-based space that allowed participants to safely distribute and access resources and initiate different information flows with different levels of access with respect to intellectual property rights. These findings connect the study with a larger discourse on the educational learning environments, specifically, with their innovative aspects (Savelyeva, 2009, 2012a, 2012b, 2013a, 2013b, 2014; Savelyeva & McKenna, 2011).[9] The cooperative, voluntarily, and collaborative diversity of the local VTE agents created a dynamic and synergetic educational learning environment, which contributed to the VPE's sustainable implementation and development.

Factor Three: Shared Resources

In this study, the factor of shared resources for VPE sustainable development emerged as an organised flow of intellectual VPE resources that were primarily concentrated at the University, its research centres and laboratories, and provided logistical, organisational, managerial, and, to some extent, financial resources to the participating VPE institutions. The study also revealed that the process of resource sharing by the diverse VPE agents was mostly related to practical issues of 'knowledge ecology'

[9] Savelyeva derives four key aspects of the global learning environment model: innovative, interactive, intercultural, and interdisciplinary, which are bound by a principal of mutual learning.

(Savelyeva et al., 2021) and teaching and learning, which “rely largely on informal exchange between colleagues” (Maloney et al., 2013, p. 812).

The centralised and organised sharing of VPE resources in the Russian educational sector is guided by the federal law[10] (Federal Law of Education, 2012/2014/2020), which defines and regulates the terms of resource sharing not only for educational institutions, but also for the economic sectors which support educational processes and learning activities (medicine, culture, sports, industry, agriculture, and different types of production). The increased efficiency of the centralised intellectual resource sharing has ensured access to the resources for the VPE institutions, which had limited inbound resource flow due to their poor infrastructure and information logistics. The centralised flow of VPE resource sharing, organised and managed by the RSVPU, corporate tertiary institutions, and VTE consortia, was an important aspect contributing to VPE sustainable development.

The two notable examples of the successful resource sharing in the Ural region include the launches of two large VPE complexes by regional VTE consortia in the city of Nizhny Tagil, Russia, and Karaganda, Kazakhstan. The establishment of a corporate university in Nizhny Tagil was a result of the joint efforts of a large engineering complex, polytechnic universities, and VTE colleges, schools, gymnasiums, and lyceums. For the purpose of increasing VPE quality in the city, this joint venture generated a resource sharing process that brought together intellectual, informational, technological, material, economic, administrative, and other resources at different educational levels. Applying the similar structure of the centralised and regulated VPE resource share, the Karaganda State University united efforts of the large industries and Kazakhstani and Russian research institutions and universities into a consortium and established a corporate university in Karaganda, the leading industrials city in Kazakhstan (Ulemuratova, 2013).

These two examples of the successful VPE resource sharing model oppose a postulate of the resource dependence theory (Pfeffer & Salancik, 1978) that the ultimate reason organisations form partnerships lays in their need for resources that would help them to achieve their own individual goals. Such rational objectives for resource sharing (Ashraf et al., 2017), stated in the resource dependence theory, were not identified in the interviews of the VPE leaders. Instead, the VPE resource holders consolidated their efforts towards a single goal of improving the quality of vocational teacher preparation. This unifying goal inspired the resource sharing that led to the establishment of autonomous and powerful VPE corporate university structures. Our analysis connected the shared resource factor with VPE sustainable development in the following ways: shared resources addressed issues of interprofessional collaboration and learning; greatly increased employers’ VPE engagement; and expanded possibilities for adult learners and secondary school and VTE college graduates for building individual lifelong learning VPE paths.

[10] The authors refer to 2014 version of the Low of Education of the Russia Federation, active at the time of this study.

Factor Four: Educational Logistics

As a factor to VPE's sustainable development, educational logistics in this study consisted of the following dimensions: organisation, planning, control and monitoring of the knowledge flow within VPE educational environments, alignment with industrial needs, efficiency, and high quality. This characteristics shaped our understanding of the VPE educational logistics as a high-quality management and self-management of educational operations and processes that allow to efficiently direct the flow of knowledge in order to support and improve VPE practices. The description of the VPE's educational logistics as depicted in this study supported the results of previous studies on educational logistics in Russia (Denisenko, 2003; Trofimova, 2017). Extending the discussion to the field of VTE, the study enriched this localised scientific arena by adding a new VTE specific element of the knowledge flow to the existing general educational logistic models, namely the negotiation of the VPE knowledge flows with demands of an industrial/service sector. Our analysis of the VPE knowledge flow within the VPE Teacher Association revealed the following general elements: cross-level distribution; information; equipment; teaching, learning, and instructional methodologies; and curricular and instructional support for VPE teachers and leaders. These findings contributed to the piloted federal VTE standards, developed in collaboration with the VPE Teacher Association, federal education authorities, ministries of industries, and the VET Scientific and Methodological Council. Although the standards were tested in 130 universities and 90 colleges in Russia, their implementation has not been achieved.

The interview respondents conveyed three broader functions of VPE educational logistics: negotiation, compromise, and optimisation that highlighted the RSVPU's attributes of a distributed logistic hub. Applying the law of logistics and utilising digital technologies, the RSVPU extended the flows of VPE knowledge to professional teachers in the Northern Polar Territories of Russia. This finding illustrated the practical value of the VPE multidimensional approach to interprofessional learning (Howkings & Bray, 2017), when the use of academic and vocational competencies not only increased the VPE quality and system mobility (McKenzie, 2017), but it also ignited change for VPE teachers and workers in the remote northern communities. The benefits of educational logistics as VPE's sustainability factor can be applied in different RSVPU structures (e.g. post-graduate education) in order to boost the University's status of a leading scientific, educational, and an educational hub. Although educational logistics have not been detailed in educational management studies (Tomlinson, 2014), we argue that it reserves one of the leading positions and sustains tertiary VTE efforts through negotiation, optimisation, and the compromising of educational processes, practices, and management.

Conclusion

The four VPE sustainable development factors—network cooperation, diversity of interacting agents, shared resources, and educational logistics—resulted from the case study of the Russian tertiary VPE institution and described unique and innovative ways to advance the country's VPE system in the transitioning economy. Aiming at the continuity and sustainability of the entire educational system, the findings of this study provided strategic direction not only to the Russian VPE tertiary sector, but also to the international communities of VTE scholars and practitioners, who are upgrading their educational and training systems (Tucker, 2019) for the advancement of the SDGs in their countries. The four sustainability factors could be used internationally, as guideposts of best practices for analysing the VPE initiatives, programmes, or systems in any country, after the careful adaptation to local economic, political, cultural, and social conditions.

The vision of the Russian tertiary VTE academic leaders for creating an effective VPE system that empowers millions of people in a transitional economy can also provide a path for sustainable development of the entire nation. The VPE's unique positioning at a junction of the pedagogical sciences and vocational training and its attachment to the economic demands and conditions require flexibility of its core structures and instant adoption of innovation (Liu et al., 2022; Park & Savelyeva, 2022; Savelyeva & Park, 2012, 2022; Savelyeva, 2013a, 2013b, 2014, 2022a, 2022b) that, in turn, opens doors to quick sustainable transformations. This points at the VPE's potential to become a powerful instrumental SDGs agent of personal empowerment and national growth. Approaching VET as a SDGs game-changer, policies have to acknowledge a pivotal role of the VPE teachers and leaders (Kim & Phang, 2018; Ruiz-Valenzuela et al., 2017). They are, as showed in our study, the main resource and key agents of lifelong learning and sustainable development in vocational institutions.

References

Akimova, O., Dorozhkin, E., & Sikorskaia, G. (2014). The strategy of network cooperation between institutes of professional pedagogical education [Концепция сетевого взаимодействия учреждений профессионально-педагогического образования. *Педагогический Журнал Башкортостана*]. *Bashkortostan Pedagogical Journal, 6*(55), 24–34.

Aguinis, H., Boyd, B., Pierce, C., Short, J., Moliterno, T., & Mahony, D. (2011). Network theory of organization: A multilevel approach, *Journal of Management*, *37*(2), 443–467. https://doi.org/10.1177/0149206310371692

Ashraf, N., Ahmadsimab, A., & Pinkse, J. (2017). From animosity to affinity: The interplay of competing logics and interdependence in cross-sector partnerships. *Journal of Management Studies, 54*, 6. https://doi.org/10.1111/joms.12273

Cedefop. (2017). *On the way to 2020: Data for vocational education and training policies—2020 update. Country statistical overview*. Publications Office of the European Union. Cedefop research paper, No 61. https://doi.org/10.2801/414017

Chevalier, J., & Buckles, D. (2019). *Participatory action research: Theory and methods for engaged inquiry* (2nd ed.). Routledge.
Chuchkevich, M. (1999). *Fundations of the network organization management [Основы управления сетевыми организациями]*. The Institute of Sociology of the Russian Academy of Sciences.
Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.
Cummings, T. (Ed.). (2008). *Handbook of organization development*. Sage.
Davydova, N., Fedorov, V., & Shevchenko, V. (2012). The development of network cooperation in innovation-functioning educational institutes. In G. Dorozhkin & Fiodorova (Eds.), *18th Russian Scientific Practice Conference: Innovations of in Vocational and Vocational-Pedagogical Education* (pp. 16–17). The Russian State Vocational Pedagogical University Press.
Denisenko, V. (2003). *Foundations of the educational logistics* [*Основы образовательной логистики*]. Kaliningrad State University Press.
Dorozhkin, E., & Chernoskutova, I. (2020). The problems of formation of the national system of personnel training for vocational schools: Historical and genetic analysis. *The Education and Science Journal, 22*(3), 172–204. https://doi.org/10.17853/1994-5639-2020-3-172-204
Federal Law "Education in Russian Federation" of 2012, Pub. L. No. N 273-FZ, § 9, Stat. 7374 (2014) (prior to 2020 amendment).
Fiodorov, V. (2001). *Vocational-pedagogical education: Theory, empiricism, practice.* [*Профессионально-педагогическое образование: Теория, эмпирика, практика*]. Ural State Vocational-Pedagogical University Press.
Fedorov, V., & Tretyakova, N. (2017). Vocational-pedagogical education in Russia: Historical and logical periods. *The Education and Science Journal*, (3), 93–119. https://doi.org/10.17853/1994-5639-2017-3-93-119
Habermas, J. (1991). *The structural transformation of the public sphere an inquiry into a category of bourgeois society* (T. Burger & F. Lawrence, Trans.). The MIT Press (Original work published in 1962).
Howkings, E., & Bray, J. (2017). *Preparing for interprofessional teaching: Theory and practice.* Radcliffe.
Kim, I., & Phang, M. (2018). Hierarchical relationship between teaching ability of specialized high school teachers and variables of individual and organizational characteristics [특성화고등학교 교사의 교수능력과개인 및 조직특성 변인의 위계적 관계]. *The Journal of Korean Education, 45*(3), 141–164. https://doi.org/10.22804/jke.2018.45.3.006
Kilduff, M. & Tsai, W. (2003). *Social networks and organizations.* Sage. https://doi.org/10.4135/9781849209915
Liu, J., Kitamura, Y., & Savelyeva, T. (2022). Building 'ecology' for transforming higher education teaching and learning for sustainability. *Asia Pacific Education Review*. http://doi.org/10.1007/s12564-022-09794-1.
Maloney, S., Moss, A., Keating, J., Kotsanas, J., & Morgan, P. (2013). Sharing teaching and learning resources: Perceptions of a university's faculty members. *Medical Education, 47*(8), 811–819. https://doi.org/10.1111/medu.12225
McKenzie, M. (2017). Affect theory and policy mobility: Challenges and possibilities for critical policy research. *Critical Studies in Education, 58*(2), 187–204.
Oleynikova, O., & Muravyova, A. (2009). Reform of vocational education in the Russian Federation. In R. Maclean & D. WIllson (Eds.), *Education for the changing world of work: Bridging academic and vocational learning.* In R. Maclean & D. Wilson (Eds.), *International handbook of education for the changing world of work* (pp. 469–481). Springer.
Organisation for Economic Co-operation and Development (OECD). (2021). *Teachers and leaders in vocational education and training. OECD Reviews of Vocational Education and Training.* OECD Publishing. https://doi.org/10.1787/59d4fbb1-en

Park, J., & Savelyeva, T. (2022). An interpretive analysis of the 2030 sustainable development goals in Hong Kong public universities. *Asia Pacific Education Review*. http://doi.org/10.1007/s12564-022-09777-2.

Pfeffer, J., & Salancik, G. (1978). *The external control of organizations. A resource dependence perspective*. Harper and Row.

Podolny, J., & Page, K. (1998). Network forms of organization. *Annual Review of Sociology, 24*, 57–76. https://doi.org/10.1146/annurev.soc.24.1.57

Romantsev, G. (2009). The coherence of vocational education with the demands and trends of economic development: A main point of transformative development. In V. Shevchenko (Ed.), *17th Reginal Scientific Practice Conference: Achieving Goals of Transformative Development: The Design of a Contemporary Educational Model* (p. 284) [Соответствие профессионального образования потребностям и тенденциям развития экономики - основной принцип опережающего развития. *Национальная образовательная стратегия. Формирование современной модели образования, ориентированной на достижение целей опережающего развития : материалы окружной науч.-практ. конф*]. Ural Branch of the Russian Academy of Education Press.

Russian State Vocational-Pedagogical University (RSVPU). (n.d.). *Official history of RSVPU.* https://www.rsvpu.ru/about/istoriya-i-simvolika/oficialnaya-istoriy

Ruiz-Valenzuela, J., Terrier, C., & Effenterre, C. (2017). *Effectiveness of CEOs in the public sector: Evidence from further education institutions. Briefing Note 005.* The Centre for Vocational Education Research. http://cver.lse.ac.uk/textonly/cver/pubs/cverbrf005.pdf

Savelyeva, T. (2009). *Global Learning Environment: Innovative concept and interactive model for changing academia and academics.* VDM-Verlag.

Savelyeva, T. (2012a). Escaping the "structural trap" of sustainability in academia through Global Learning Environment. In K. Bartels & K. Parker (Eds.), *Teaching sustainability/teaching sustainably* (pp. 231–241). Routledge (Taylor and Francis).

Savelyeva, T. (2012b). Connecting instructional and cognitive aspects of a LE: A study of the Global Seminar Project. *Learning Environment Research, 15*(1), 65–79. https://doi.org/10.1007/s10984-012-9099-1

Savelyeva, T. (2013a). It's everybody's business: Addressing the challenge of team-teaching, partnership in Global Seminar. In L. Johnston (Ed.), *Higher education for sustainability: Cases, challenges, and opportunities from across the curriculum* (pp. 139–153). Routledge (Taylor and Francis).

Savelyeva, T. (2013b). Toward a conceptual synthesis and ecological approach to case studies of curricular innovation implementation and university restructuring in Russian higher education. *International Journal of Higher Education, 2*(4), 228–237. https://doi.org/10.5430/ijhe.v2n4p228

Savelyeva, T. (2014). Implementation of Creative Education policy in Russian higher education curricula. *Creative Education, 5*(2), 86–92. https://doi.org/10.4236/ce.2014.52014

Savelyeva, T. (2022a). In times of uncertainty: Advancing university sustainability model in Hong Kong. In W. Leal Filho (Ed.), *Handbook of sustainability science in the future.* Springer. https://doi.org/10.1007/978-3-030-68074-9_122-1

Savelyeva, T. (2022b). The influence of education and family systems on the sustainability values of Hong Kong university students. *Asia Pacific Education Review*. https://doi.org/10.1007/s12564-022-09786-1.

Savelyeva, T., & McKenna, J. (2011). Campus sustainability: Emerging curricula models in higher education. *International Journal of Sustainability in Higher Education, 12*(1), 55–66. https://doi.org/10.1108/14676371111098302

Savelyeva, T., & Park, J. (2012). Ecologism and complexity of campus sustainability discourse. Sustainable development at universities: New horizons. In W. Leal (Ed.), *Environmental Education, Communication, and Sustainability* (Vol 34, pp. 183–192). Peter Lang.

Savelyeva, T., & Park, J. (2022). Blockchain technology and sustainable education. *The British Journal of Educational Technology 53*(6), 1591–1604. https://doi.org/10.1111/bjet.13273.

Savelyeva, T., do Livramento, G., & de Andrade J. (2021). New knowledge ecologies and politics of technological change. In M. Peters & R. Heraud (Eds.), *Encyclopedia of educational innovation*. Springer. https://doi.org/10.1007/978-981-13-2262-4_259-1

Tomlinson, H. (2014). *Educational management: Major themes in education*. Routledge.

Tran, L., & Le, T. (2017). Teacher professional development under the impact of internationalization in VET: Transnational perspectives. In L. T. Tran & K. Dempsey (Eds.), *Internationalization in vocational education and training* (pp. 77–94). Springer.

Tran, L., & Le, T. (2018). *Teacher professional learning in international education: Practice and perspectives from the Vocational Education and Training sector*. Springer.

Trofimova, O. (2017). Educational logistics as a bases for educational institution management. *Educational Management and Economics, 8*, 38–42. Pedagogical Education in Russia. https://doi.org/10.26170/po17-08-06, http://elar.uspu.ru/handle/uspu/8058

Tucker, M. (Ed.). (2019). *Vocational education and training for a global economy: Lessons from four countries*. Harvard Education Press.

Ulemuratova, B. (2013). *"Resource Centre:" Students' preparation and training for vocational education and practices*. Karaganda State Polytechnic University Press.

United Nations (UN). (2015). *Transforming our world: The 2030 agenda for sustainable development A/RES/70/1*. United Nations Publishing.

United Nations Educational, Scientific and Cultural Organisation Institute for Lifelong Learning (UNESCO UIL). (2020). *Annual report for lifelong learning. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*. UN. https://annualreports.uil.unesco.org/

United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2012, May 16). *Shanghai consensus: Recommendations of the Third International Congress on Technical and Vocational Education and Training: 'Transforming TVET: Building skills for work and life*. UNESCO. http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/concensus-en.pdf

Galina P. Sikorskaia is an Emeritus Professor of Noospheric studies and an Academic of the Russian Academy of Natural Sciences, Russia. Prof. Sikorskaia scientific interests covers a broad array of fields related to ecological and noospheric education, vocational, comparative, and global education for sustainable development, ecological ethics, as well as pedagogical hermeneutics and acmeology. She authored over 200 scientific and methodological publications, including scientific articles, reports, university textbooks and children books. Prof. Sikorskaia is a member of multiple editorial boards of scientific and educational journals. For her distinguished contributions, Prof. Sikorskaia was awarded with an *Order of Catherine the Great "For Service to Science and Education"* by the Russian Academy of Natural Sciences in 2015.

Tamara Savelyeva is Associate Professor in Sustainable Education at the Hong Kong Institute of Education for Sustainable Development. She serves as a Program Director at the UNESCO Hong Kong Association; Senior Founding Fellow the World Institute of Sustainable Development Planners in Hong Kong SAR; and Editorial Board member of the International Journal of Sustainability in Higher Education. Dr. Savelyeva conducts educational research and projects in the areas of sustainability education development in different countries. Together with participants of the Rio+20 higher education meeting in Brazil, she has contributed to the educational framework for the 2012 Earth Summit. Her recent scholarly works include 2022 *In times of uncertainty: Advancing university sustainability model in Hong Kong*; 2021 *New knowledge ecologies and politics of technological change*; and 2019 *SDG3 Health and Wellbeing: Re-calibrating the SDG Agenda*.

Chapter 12
Creating a Sustainable College Performance Evaluation in China

Luxi Zhang, David Sorrell, Paul Adams, and Bob Adamson

Introduction

In order to achieve the sustainable development of universities, since 2015, the State Council, the Ministry of Education and other relevant departments in China have successively issued documents to promote the construction of world-class universities (Tian & Lu, 2017). For instance, Zhejiang University, one of the top three universities in China, signed a cooperation agreement with thirty international university presidents for its university's sustainable development (O'Malley, 2021). Starting from 2018, Chinese colleges and universities have changed their teacher employment system from staffing of government-affiliated institutions to a contract-based appointment system (Zhang & Zhang, 2020). However, the intensified academic pressure lowered teachers' enthusiasm in teaching but increased their job insecurities and anxieties (Tian & Lu, 2017; Xu, 2021).

Performance evaluation has been widely used in higher education institutions (HEIs) around the world, as neo-liberal discourses drive radical reforms (Bamberger et al., 2019; Pecheritsa, 2022; Stromquist, 2012; Zheng & Kapoor, 2020; Zipin & Brennan, 2012). HEIs have been conceptualized 'as business corporations engaging in international trade rather than operating as a public good' (Adamson, 2012, 285), and quality assurance mechanisms have been imported from the business sector to monitor the productivity of academics. This importation has been justified as creating

L. Zhang (✉)
Zhejiang Gong'shang University, Hangzhou, China
e-mail: zhangluxi@mail.zjgsu.edu.cn

D. Sorrell
The Education University of Hong Kong, Hong Kong, China

P. Adams
University of Strathclyde, Glasgow, Scotland

B. Adamson
University of Nottingham Ningbo China, Ningbo, China

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_12

'a culture of continuous organizational and professional *self-development* and *self-regulation* that will provide a better value-for-money service that is compatible with the needs of the global (post)modern *knowledge economy* and *learning* society' (Worthington & Hodgson, 2005, 98, italics in original).

These conceptualizations are matters of policy. Indeed, such framing proffers meaning through the rights, duties and obligations offered to citizens via state mechanisms. Wrapped up with the frame of neo-liberalism is a notion of development that centres on externally validated and imported versions of 'the real'. Such versions are set up as 'profitable' in that they seemingly confer future gains for the system and individuals. In effect, macro-Discourses (Gee, 2012) position explanatory attempts: big-D/Discourse (Gee, 2012) frames consideration of how language is embedded in society and social institutions (Gee, 2012); big-D/Discourse is

'…composed of distinctive ways of speaking/listening and often, too, writing/reading coupled with distinctive ways of acting, interacting, valuing, feeling, dressing, thinking, believing with other people and with various objects, tools, and technologies, so as to enact specific socially recognizable identities engaged in specific socially recognizable activities.' (Gee, 2012, 152).

Big-D/Discourses provide means of recognizing and getting recognized in multiple ways; they concern enactment and recognition. They are about socially accepted association in language and other expressions of thinking, feeling, etc., and how we use tools, technologies and props so that we might identify ourselves as a member of a socially meaningful group to signal that we are filling a social niche in a recognizable fashion (Gee, 2012, 158). Big-D/Discourses are mastered by enculturation into social practices through scaffolded interaction with others (Gee, 2012, 167–168). Behaviour becomes meaningful only against the Discourse, or a set of complementary or competing Discourses that 'can "recognize" and give meaning and value to that behaviour' (Gee, 2012, 190). In turn, policy missives that position individuals and groups in specific ways may be 'readerly' in that they offer limited scope for resistance or 'writerly': room for manoeuvre is built into their fabric.

This chapter focuses on issues surrounding quality assurance in HEIs in China, specifically the performance evaluation of individual staff. Since the 1970s, China has reformed its higher education sector with key policies and projects as the government has promoted and invested heavily in its universities. Its ambition is for universities to have 'the potential to enter the world-class league' (Yang, 2012, 157), an indication that China has embraced at least some of the concepts of neo-liberalism, such as competitiveness. Here, performance evaluation is considered important in monitoring the performance of academic and administrative staff. The College Performance Evaluation (CPE) was introduced in 2007 to optimize the competence and potential of its staff in order to achieve the development of HEIs and to enhance the career prospects of high performers. Nevertheless, many Chinese HEI staff seem dissatisfied with CPE. Their performance is assessed every three years, which they feel is burdensome and, since performance evaluation is linked with staff salaries, the issue of fairness in CPE has been questioned (Yu & Ji, 2014).

In this chapter, CPE for individual staff in one university in China is addressed. It presents the contexts of the introduction of the CPE and traces its implementation. In particular, it looks at the responses of academics being evaluated and of administrators charged with implementing the system and notes signs of resistance to the policy. Emergent challenges to CPE are identified and discussed.

The theoretical basis for the chapter is drawn from debates around policy transfer and a heuristic of *positioning*. The predominance of neo-liberal Discourse in the processes of education policy-making and implementation means that nation states such as China operate increasingly within a global setting (Rizvi & Lingard, 2010), in which similar policy strategies are found across different contexts. In recent decades, there has been the desire and impetus for China's best higher education institutions to 'follow the lead of European and North American universities, from curriculum to financial practices to new governance structures' (Yang, 2012, 157). However, the relevance and applicability of foreign policies and practices directly transferred from the 'West' have been questioned since the late imperial era in China (Tan & Chua, 2014).

To address the above, the chapter firstly outlines *positioning theory*, the basis for the tripartite heuristic to be used. It then examines the ways in which policy is *framed*, at the macro-level, *explained*, at the level of policy text, and *formed (positioned)*, at the local level through the exchange of emails and interviews. The chapter concludes with a discussion of the data in the light of globalization and neo-liberal reform.

Positioning Theory

For some time, the literature has noted positioning theory as a means by which one might understand and consider the day-to-day perspectives of everyday discourse and language. From its origins in narrative psychology, it has broadened its scope and appeal (Burr, 2003). Importantly, writers such as Harré (2004), Harré and van Langenhove (1999) and Drewery (2005) have explored how we are created as subjects by interaction through language. Specifically, positioning theory enables researchers to uncover and explore how '…we come to take up certain identities and not others' (Drewery, 2005, 306). It is a relatively new phenomenon and as such has no single definition, but this should not detract from its importance, especially if a particular way of conceiving of positioning theory can be garnered for the purposes of policy analysis.

Positioning as a 'discursive process whereby selves are located in conversations as observably and subjectively coherent participants in jointly produced story lines' (Davies & Harré, 1990, 48) is useful as a means by which snapshots of experience and perspectives might be understood. However, some, particularly Drewery (2005), argue for a more dynamic interpretation to explain how subjective experience is produced. She cites opportunities for critical reflection and analysis of preferred forms of subjectivity through the formation of differing types of 'position calls', that is, implicit invitations to take up subject positions. Indeed, when writing about counsellors and counsellor educators, Drewery highlights the need for the development of '…sensitivity to the constitutive effects of conversations' (2005, 306) and in so doing helps us think about '…the productive impacts of colonizing language' (2005, 307). Her call concerns the interpersonal; the area of consideration is that of the conversation, the immediacy of the moment of discursive production.

For Gee (2012, 112), little-d/discourse consists of '…stretches of language which "hang together" so as to make sense to some community of people, such as a contribution to a conversation or a story'. In this way, sense-making can be uncovered in moment-by-moment discursive events through empirical matters. Importantly, language is embedded in society and social institutions (Gee, 2012, 112). There is, then, a need to uncover and examine the ways in which wider societal matters construct understanding, and so, in contrast, Gee highlights Discourse, as indicated above. For positioning theory, this distinction is noteworthy. Van Langenhove and Harré (1999, 103) write that, 'Positions usually involve not only speaking and writing rights, duties and obligations, but also expectations as to how someone in a certain position will exercise their rights…' Through a variety of discursive acts (conversational moments), positions can be offered and amended, taken up or resisted (Barnes, 2004).

Positions are fluid. They change from moment to moment depending on interpretation and sense-making. This constant flux seems in contrast to the observation that people behave consistently. Notably, in this matter, positioning theory maintains that our 'selves' are made in discursive moments, not through our biological makeup, and only make sense in terms of social referents. A person is not 'subjected' to pre-existing discourses, but, rather, subjectively constructs such discourses for themselves. Within the person/conversation reference, positioning is a process whereby speakers construct personal stories through discourse, and such stories are taken up, amended or resisted. In this way, actions are made intelligible and determinate as social acts (Tan & Moghaddam, 1995).

But it is also the case that wider Discourses abound in such instances and, in turn, offer positions of their own (Bamberg, 2004). In this regard, Discourses constitute the individual position in relation to other people from a number on offer (Hollway, 1984). Speakers become 'the person' who is 'already positioned' in a top-down fashion (Bamberg, 2004) as Discourses provide the 'meaning' within which positions are taken. There is, then, a need to consider both macro- and micro-positioning. As Bamberg (2004) states, it is possible to reconcile the two views of the subject, allowing 'us to study individuals' resistance to dominant [D]iscourses, and the emergence of alternative subject positions as well as subversive practices' (Willig, 1999, 554).

In order to understand human behaviour and, thus, understand education, the analyst must understand how people use Discourse to construct meaning in specific contexts (Slocum-Bradley, 2009). This describes a social world ordered through construction; of note, here is the socio-political: the micro-politics of discursive acts and formational activities within Discourse.

For policy analysis, there are three points to consider. First, the social, cultural and political milieu which precedes the formation of text must be of concern. Second, texts themselves do not constitute policy: they are but physical explanations of events and discussions. Third, discursive processes themselves actively form policy: they position policy-explanation and policy-framing within the bounds of the institution and so give policy form (Adams, 2016). Accordingly, this chapter uses a tripartite heuristic to examining policy (Adams, 2016) and the ways in which wider Chinese policy-frames and policy-explanations are formed (positioned) at the local level.

It is unsurprising that HEIs and individual academics respond in different ways to the positions offered by top-down policy missives. As a result of local contextual factors, such as geography, history or culture, and their interactions with global forces (Adamson, 2013), some resist, some comply, and some appropriate innovations (Adamson, 2012). They are used against pressures from outside a social group; established values will be defended, if considered threatened by external ideas (Bache & Taylor, 2003). Compliance occurs when HEIs or individuals within the institutions follow imposed requirements with a high degree of fidelity. Appropriation occurs when they choose to adapt policy missive positions under their own terms. This can be described, to a certain degree, as defiance resulting from 'appropriation of the instruments of neo-liberal ideology for their own purposes, including self-strengthening' (Adamson, 2013, 9).

Policy Framing: Reforms in Chinese Higher Education

The changes to Chinese HEIs in recent decades mirror China's transformation from a highly centralized, planned economy to a socialist market economy (Mok & Chan, 2012). Reforms in the 1970s led to education supporting economic growth in the mid-1980s (Yang, 2008, 2012), and the monopolistic role of the state was reduced as a result (Mok & Chan, 2012). All students, after the issuance of new regulations, became fee paying in 1997 (Shan & Guo, 2014), and significant financial investment was injected into the development of world-class universities. For example, Project 985, sought to 'fast-track the designated institutions to become high-level and research-intensive through focal investment by central and provincial governments' (Yang, 2012, 157). A globalizing Discourse became embedded in the higher education narrative. It conferred on education the duty to expand its horizons and internationalize its efforts. China has emerged in recent years as a regional education hub and choice for international students to undertake their university studies (Wen & Hu, 2018). The differentiation of institutions became a mechanism whereby merit could be awarded. Accordingly, in 1993, the government bestowed the right for universities to organize themselves under the macro-management of the government within the Outline for Reform and Development of Education in China (Central Committee of the Communist Party of China and The State Council, 1993). Furthermore, in 1999, in order to develop education as an industry and promote quality higher education in China, the government encouraged nongovernmental sectors to organize schools according to The Central Committee of the Communist Party of China and The State Council's Decision on Deepening Education Reform and Promoting Quality Education (General Office of The Central Committee of the Communist Party of China, 1999). To compete with the rise of private-run universities in the market-driven economy, state-owned universities in China had to undergo reforms with the implementation of performance evaluation for assuring quality in teaching, research and services. This re-positioning of the higher education academy was an acceptance of the position calls offered by the globalized higher education industry. It was, and still is, a site for vernacular globalization (Appadurai, 1996) or 'the ways in which local sites and their histories, cultures, politics and pedagogies mediate to greater or lesser extents the effects of top-down globalization' (Rizvi & Lingard, 2010, 65).

Policy Explaining: College Performance Evaluation

The nationwide use of the College Performance Evaluation (CPE) in state-owned universities commenced in 2007 (Ministry of Personnel of the People's Republic of China, 2007). Despite the weaknesses of CPE, some studies found that its implementation can motivate teachers to perform better in teaching, research and services (Zhu, 2013). Central here were ideas about efficiency and hard work. The policy was positioned as a motivating force for low-performing academics. There are four types of posts ranging from the primary title of assistant, intermediate title of lecturer and senior titles of associate professor and professor. From 1986 to the start of performance evaluations, there had been no specific research requirements for professors and such a post was tenured. Thus, a professor might feel there was no need to focus on research. Some associate professors were also reluctant to conduct research. In order to build first-class universities in China (Peters & Besley, 2018; Song, 2017; Yang, 2012), professors and associate professors are required under the new CPE system to make significant contributions to their university in research, teaching and community services. Academic positions were no longer considered 'an iron rice bowl' or a secure job for life. CPE was developed as an incentive to university staff at different levels. After the implementation of CPE, the four titles have remained, but with ranks added to each title. Generally speaking, performance evaluation is calibrated for eleven ranks. Ranks one to four are for professors; ranks five to seven, associate professors; ranks eight and nine, lecturers; and ranks ten to eleven, assistant lecturers. Such changes elevate status and tie this to the production of research. In essence, meaning is imbued through positional mechanisms which offer rights in return for accepted duties and obligations. The policy text desires to position higher education staff as worthy or, indeed, more worthy, through title. The Discourse is one of the production-oriented merits: produce or perish.

In the past, teachers were evaluated by some leaders in a college, such as principals and professors, with specific benchmarks designed by them. The new system added an independent, normative performance evaluation system tailored to specific posts linked to an employment contract. CPE was an initiative of the central government, but minor changes can be made according to the specific contexts of each university. CPE started with the premise that there was a balance between the deployment of suitable posts and the resource distributions of a university. Based on the needs of different disciplines, the university could plan the recruitment of staff and identify the requisite teaching and research qualities, bearing in mind its development plans and available resources. Since 2006, state-run institutions should have open staff recruitment according to the Interim Provisions for Recruiting Personnel in Public Institutions (Ministry of Personnel of the People's Republic of China, 2005). This has enabled the competitive selection of staff both internally and externally. The normative evaluation system was a key issue in CPE. Its importance was how to effectively manage the relationship of an individual's career development with the goals of the university. The system requires an integration of quantitative and qualitative evaluations. The emphases were on professional competence and ethics. The evaluation of professional competence assessed both academic research and teaching abilities, while the evaluation of ethics focused on humanistic concerns for students. Finally, the employment contract system was the legal component of CPE. It included the provision of an agreement between teachers and their university according to the nation's educational laws. Contract management was useful to ensure that the rights, duties and obligations of both sides could be understood and realized.

Such was central designation of the 'ideal academic'. While a concentration on research positioned the localized mediation of globalization, the ability to locally re-purpose CPE positioned institution and individual within a local Discourse that could be relied upon to traverse the day-to-day workings of the system. Discursive positioning could, thus, take place in ways that could drive the positioning of the institution itself. In turn, such systemic Discourses offered position calls for individuals and groups which, through their enactment, specify the ways and means by which individual merit can be conferred.

Indeed, Zhu (2013) investigated the motivation effects of the internal system on performance evaluation in two universities in Anhui Province, China. The self-designed questionnaire included three positions: the factors influencing academics' job satisfaction; their attitudes towards the performance evaluation; and suggestions for improving CPE. The results indicated three motivational effects of performance evaluation. First, most academics mentioned that, as it was now possible to be recruited through competition, their motivation to conduct teaching and research was enhanced. Second, CPE increased their responsibilities and pressures. Many mentioned that the new appointment system encouraged them to improve their teaching methods and apply for more research funds and projects. Third, CPE strengthened the spirit of competition among academics and changed their working attitudes. Four challenges were also apparent (Zhang, 2013). These concerned the implementation of performance evaluation and the lack of linkage with the university's development goals; little regulation of the CPE, in that it was applied randomly and not according to the appropriate schedule; a lack of strong administrative and instrumental support (CPE was often ignored by HEI leaders, and there was a shortage of trained personnel to conduct the evaluations); and excessive attention to short-term instead of long-term performance evaluation.

It could be argued that this is a totalizing Discourse in that it develops a system in tune with the needs of wider rights, duties and obligations, some of which are clearly taken up by actors therein. However, it is also the case that conflict abounds.

In this sense, the positions offered by attempts to explain policy give rise to discursive moments that are resisted or amended.

In the early development stage, universities at the meso-level rather than their subordinate departments were responsible for implementing CPE. In Sheng's (2007) analysis of Zhejiang University's implementation of its performance evaluation systems, the university believed that high-level teaching staff was an important part of self-innovation and in building core competitiveness. After the successful merging of Hangzhou University, Zhejiang Agriculture University and Zhejiang Medical University into Zhejiang University in 1998, the university began employing an increased number of young teachers with higher professional titles and degrees. The university introduced a performance evaluation system in 2000, earlier than many other universities. The foci of its performance evaluation were on building an environment encouraging fair competition among university teachers and providing more stages and opportunities for academics to develop their careers. In 2006, the performance evaluation system was modified to become more quality-directed and qualitatively oriented. When appointing individual teachers, the university's development goals were taken as a reference point. Each department tended to relate the development levels of their disciplines with staff appointments. Preferential treatment was skewed towards high-performing academics, national key disciplines, key projects and key training bases for liberal arts and science. Teams, instead of individuals, could be appointed in competent departments or disciplines. The university provided supervisors, funds and research teams to help the professional development of young teachers. In addition, rather than having a fixed evaluation term of three years, each department in the university could decide its own term of performance evaluation. Usually, the predetermined time period was two to four years. Teachers who were considered 'excellent' could apply for an extended time period of six years. In special cases, for example, when a professor needed a longer time period to finish fundamental research with clear research aims, there would be no time limit.

Thus can be seen Discourses played out through policy missives and local action. These Discourses simultaneously frame the context for CPE in Chinese universities and offer policy mandate ways of explaining their aims and intentions. In this regard, they are double edged: in signalling such dichotomy Discourses offer positions from which individuals and groups might choose. The scope for local interpretation confers writerliness, but within globalized frames that centre on the production of corporal bodies bound up with the advancement of state and institution.

Policy Forming: The Study

This study investigates the effect of the implementation of CPE in a Foreign Languages College located in Zhejiang Gongshang University in June 2014, when the college was about to carry out the performance evaluation for the second time after the first implementation in 2011. The college followed the same process of CPE as Zhejiang University. In this study, the impact of the revised form of CPE is gauged. Email messages, interviews and documentary analysis were used to answer three research questions, which are as follows:

1. What are staff attitudes towards the implementation of CPE?
2. What are the reasons behind their attitudes?
3. How did college leaders react to staff opinions towards CPE?

Table 12.1 shows the important assessment criteria in the first version of CPE concerning teaching, research and services. The table includes only high-level research and scores above five in services. These became the centre of disputes among academics, as reflected in messages sent to the college's email box that all staff members had access to. Starting from June 2014, the main feedback collected from staff members comprised 57 emails (Consent to analyse these emails was granted by the staff who sent them. All emails were originally in Chinese and subsequently translated into English). Twenty-eight staff who had not contributed to the email debate discussed their views in interviews. They were asked five semi-structured questions on their attitudes towards CPE; major concerns they have regarding CPE; their evaluation of the effect of the current round of CPE; their attitude towards other staff members' reactions to CPE as expressed in public emails; and suggestions for the future improvement of CPE. As some academics with negative views towards CPE might have avoided talking openly for worrying about offending the leaders of the college or any teacher who posted emails (with both positive and negative views towards CPE), private interviews were conducted to find out if those academics who had not sent emails held the same views as the email senders. Additional questions were asked for elaboration on initial answers. Finally, documentary analysis and interviews were carried out to determine leaders' reactions towards staff feedback in their email replies. Interviews were transcribed verbatim and subsequently translated into English.

What was researched was the formation of policy at the local level. Rather than identifying policy as something that is created on high and enacted in the workplace, policy as positioning re-purposes the Discourse to be one of the local formations. At its heart, it identifies local agentic action as the lifeblood of policy mechanisms. Here, policy becomes something that is formed, at the local level, through discursive moments whereby individuals and groups form that which they are trying to understand. Two points arise here. First, such an orientation paints policy as dynamic and ever-changing. It is not a static entity onto which is projected some version of the real. Rather, the very act of trying to form an understanding is that which creates the real itself. Second, policy formation is the interplay of offered rights, duties and obligations with attendant acceptance, rejection or modification.

The Email Debate

After the release of the CPE outcomes and of the scoring rules used for all staff in the college, there was a flurry of emails circulating within the department. Twelve

Table 12.1 Important assessment criteria in the first version of CPE

CPE components	Indexes	Evaluation points	
Teaching	Ranks four and nine	$X = M/N \times 100/80$	
	Ranks five and eight	$X = M/N \times 100/90$	
	Ranks six and seven	$X = M/N \times 100/100$	
Research	National project	20	10 (no funding)
	Ministry or provincial project	10	5 (no funding)
	Sub-provincial project	8	4 (no funding)
	Bureau project	4	2 (no funding)
Services	Principal/vice principal	24/20 points per year	
	Division director/vice-division director	10/8 points per year	
	Provincial-level discipline leader/university discipline leader	16/12 points per year	
	Supervisor of postgraduate students	5 points per year	

M = average personal teaching load in a semester
N = the college's average teaching load in a semester

were broadly in support of the CPE exercise, while 45 were against. An email from Academic A was the trigger for an online discussion among academics. He scanned all performance evaluation outcomes and expressed his dissatisfaction towards the evaluation of research.

After an afternoon's reading of the performance evaluation outcomes of more than one hundred colleagues, it was surprising to find that, with the exception of a few colleagues who are seeking promotions, most staff—and especially professors—have very limited research achievements .... Some professors' performance is mind-blowing. (Academic A: email excerpt).

Academic B countered with four points:

1. This email letter is written out of spite and is intended to elicit sympathy from others.
2. Hard power is important, soft power is also important.
3. As long as you are strong enough, you cannot be controlled by the rules.
4. Do not send this kind of email letter again: it is useless, ineffective and meaningless. (Academic B: email excerpt).

Nonetheless, an aggressive discussion arose around the issue whether it was fair that academics who undertook more service could achieve better scores in their evaluation than those who focused more on their teaching and research. The unfairness was exacerbated by the fact that the colleagues with more opportunities to participate in services were leaders of the department, and these leaders had formulated the performance evaluation regulations through the department's staff appointment committee. For example, the Principal of the Foreign Languages College could achieve an annual score of 24 points for service, while a low-level colleague could reach a maximum of three points. Academic C commented with irony:

> It turns out that, as a university teacher, it is more important to serve the college, to become leaders like you, and to win awards as a distinguished committee member or administrator, than to teach a hundred more classes and to obtain more research projects. (Academic C: email excerpt)

The second revision of CPE was then made by the college in an attempt to address the criticisms. But it was hard to stop the already heated email debate. Academic D was not satisfied with the second revision of CPE:

> The new CPE seems to be better than last time's weird standards. But in essence, they are the same. The basic reason is that, only those associate professors who are not supervising graduate students (around thirty academics), and lecturers and assistant lecturers (around sixty academics), have to finish their high-level research and try hard to get service projects. Others can easily pass the required scores in CPE. How can such CPE be fair to everyone? (Academic D: email excerpt)

'Others', in Academic D's message, refer to academics who held administrative positions. Academic E suggested that such work should be paid from different funds:

> Services should not be a part of CPE. The reason to include them in CPE was: some of us were needed to do the college's big and small works. There seems to be nothing wrong with the reason. These administrative tasks should be paid from preset benefits and should not be included in CPE. (Academic E: email excerpt)

Detailed counting of a division director's score was proposed by Academic F.

> A division director can have ten points per year, and during the three years, one can get thirty points. But leading a national project or being awarded as a nationally celebrated teacher only accounts for twenty points, and a national excellent teacher only accounts for twelve points, and a provincial project scores only accounts for ten points. That means every division director gets a national project plus a provincial project. Also, a division director's concept lessons were already included in the teaching performance. Thus, the final score of a division director is truly quite high with repetitive bonus scores. This is off the scale! (Academic F: email excerpt)

The consensus of critics was that the evaluation standards were still not fair and not explicit enough. However, some emails commented that the problem of professors having poor research outcomes, as suggested by Academics A and C, was not universal across the college. Others suggested that one reason for poor research performance may be an unbalanced distribution of research resources—researchers in liberal arts had far fewer opportunities and far less funding for research projects than their counterparts in science. Eventually, the online discussion was concluded by a respected professor who urged those opposed to the CPE to stop wasting time arguing.

Interviews with Staff

To ascertain other academics' attitudes towards the CPE, seven interviews with academics who had not participated in the email debate were conducted. They were explicitly drawn from different age groups (24–29, 30–39, 40–49 and 50–60), gender and positional ranks. The interviewees were given pseudonyms: Wang (female, lecturer); Tian (male, lecturer); Chen (female, lecturer); Li (male, associate professor); Sun (male, associate professor); Yin (female, professor); and Liu (female, professor).

The seven agreed unanimously that the rules designed by leaders should be followed, even though they agreed that the implementation of this CPE was not very successful. When referring to colleagues' feedback in the emails, all interviewees showed both compassion and disagreement with the complaints. For example, Liu observed,

> It is understandable as they have to take care of their families, especially the male married colleague. Thus, they have to fight for their salaries. But I think that sending emails to provoke a war of words is irrational. It will make leaders dislike you and will get you into trouble. (Liu, interview)

All teachers recognized the importance of having CPE but disliked the evaluation system as operationalized. However, their concerns focused on different aspects. For example, Wang shows her pessimism about being evaluated every three years until retirement:

> Every time after having a staff meeting about the performance evaluation, I will be depressed and stressed for one or two weeks. I can foresee how much work is there waiting for me. (Wang, interview)

In comparison, older colleagues like Yin were concerned more about the need to institute transparent financial practices for all staff.

> The college actually has provided detailed rules to ascertain each colleague's salary; however, how much the leaders of the college have obtained from the college and the ways they would like to distribute the money are unknown to most staff. (Yin, interview)

When asked to suggest improvements to the CPE, the interviewees identified with the ideas expressed by the colleagues who sent protest emails.

> I would like to applaud those teachers who dare to send emails to protest against the CPE. They've just expressed our thoughts. I don't need to add anything online. (Chen, interview)

Reaction of College Leaders

The leaders of the college responded to staff concerns and revised the performance evaluation regulations twice. Thus, there were three versions of the CPE in 2014. The first revision was issued in June and incorporated very little change. The study in this chapter was based on the first and second revisions of CPE. The first version was strongly criticized in the email debate. The second, produced in July, included the lowering in scores for different service categories. Nevertheless, the opponents called for a more transparent and detailed cost–benefit statement, as well as constant and fair feedback, and amelioration of the CPE in the categories of teaching and research. Consequently, the leaders further refined the teaching, research and service regulations but were reluctant to include the transparent and detailed cost–benefit statements.

In June 2015, two leaders agreed to be interviewed about the CPE from their perspectives. Pseudonyms are used. Ding was male, nearly 40 years old, and responsible for teaching; Wen was female, nearly 50 years old, and in charge of research. Ding's interview was conducted online, and Wen's interview was held in her office. Both leaders agreed on the value of CPE but recognized that the system needed refinement. Ding and Wen had some minor differences in their responses. For instance, Ding was pleased with the effect of the new CPE regulations, while Wen seemed to be not completely satisfied.

The outcomes of the last round of performance evaluation were okay. The outcomes reached the expected goals. (Ding: interview).

> It was acceptable. But research is about the long-time accumulation of work. For people of my age, three years are okay for finishing all the tasks reviewed in the CPE… but young academics may need much more time. Then their CPE can be much better. (Wen: interview)

In contrast to the academics, who cared most about the pressures from CPE and the impact on their salaries, the leaders seemed more concerned about the indexes.

> I think, as a university teacher, the most attention should be paid to performance in two aspects: one is researching, one is teaching; the indexes related to these two aspects. (Ding: interview)
>
> The three parts are necessary, as a university academic. They are well recognized by the public and we should have the three parts. (Wen: interview)

While all the academic interviewees considered the last round of CPE as unsuccessful, the leaders held different ideas. Ding said most colleagues 'recognized the value' of CPE, and Wen said the achievement of letting academics know the expectations of their work by carrying out CPE should be 'appreciated'. They considered the feedback from colleagues in the emails as a 'normal' phenomenon. Ding thought it was hard to satisfy everyone in an evaluation that was closely related to one's financial rewards. Wen thought teachers might introduce other issues while showing their dissatisfaction over CPE. Both welcomed this channel for colleagues to express their views and empathized with their feelings.

> It should not be like, here is a piece of paper from the leaders and all colleagues must accept it without complaint. We must consider everyone's interests. (Ding: interview)
>
> (Sending emails) was an outlet for their emotions. … No matter what, as a way of expressing their feelings, it's fairly good. On the positive side, (emails) can provide information about what needs to be changed in the CPE. (Wen, interview)

The leaders had different interpretations of the reasons behind the negative comments. Ding suggested that some academics did not grasp that service could encompass any form of contribution to society—it was not limited to whether one held an executive position or not. On the other hand, Wen did not criticize the negative comments. Rather, she admitted that there were 'some shortcomings' in the first version of CPE. The leaders confirmed that they would further refine the regulations. Ding mentioned that CPE indexes would be 'much more detailed and sharpened' in the aspects of teaching and research to align them more closely with the college's development plan. Similarly, Wen proposed adjusting 'the proportion and weights' of the three parts of CPE. She also mentioned the necessity of 'better tailoring the CPE regulations' for junior colleagues. Ding mentioned that the service aspect, which had been heavily criticized in the email debate, would be 'weakened'. Also, Wen said that all the CPE rules would be 'simplified' to avoid some rules becoming privileges for some academics or leaders. The two leaders, however, did not agree on the effect of the new CPE rules. Ding suggested the outcome was 'very good', on the grounds that, after the implementation of the new CPE regulations, there were 'no complaints' or 'no emails' circulated. However, Wen did not think the outcomes could be viewed as 'very good'. She said that 'at least' changes had been made, implying there were remaining challenges.

Discussion

This chapter has focused on the Discourse of neo-liberalism and the transformations that have taken place globally in HEIs, with specific focus on China's CPE system. It has shown that the CPE was part of a move by the Chinese government to strengthen the productivity and, therefore, the status of its HEIs, which had been identified as playing a key role in the nation's economic development. The chapter monitored the different reactions of academics and leaders during the implementation of a revised form of performance evaluation in a Foreign Languages College within a Chinese university.

The study shows the complexities at the macro (state)-, meso (college leadership)- and micro (individual academics)-levels. The nature of CPE has required regular revisions to align it with state goals, while also allowing for local contexts to be taken into account. The positions of academics to the version of CPE that was introduced in the college ranged from defiance to compliance. A large number of colleagues reacted strongly and protested that the system was flawed and not fit for purpose: they formed a version of the policy that was inequitable through its favouring people working in leadership roles and omitting aspects such as financial transparency. On the other hand, some academics suggested that protesting was futile and that it demonstrated an unhelpful and divisive attitude—instead, academics should accept the decisions made by the college leaders. In the data collected by emails, for example, only 12 of the academics were in support of performance evaluation with approximately 45, or about 80%, against. The academics who were interviewed, however, all reflected support or compliance towards CPE. The college leaders displayed willingness to compromise, although they did not fully adopt all the suggestions for improvement made in the email exchanges. The leaders, thus, appropriated the CPE system by adjusting it to the particular contexts of the college. However, this form of positioning was not an act of defiance or subversion; it was an attempt to follow state requirements in ways that satisfied the concerns of those whose careers and livelihoods were affected by the CPE. The resultant negotiated settlement was, as positioned by one of the leaders, imperfect (for instance, it did not incorporate a more transparent and detailed cost–benefit statement), but at least there were no further email debates to complain about the CPE after the release of the third revision. It seemed that some of the fears and anger expressed by a number of academics had been assuaged to some extent.

It would seem that at the local level, and through discursive moments, the CPE policy was formed as something that was inherently unfair and, in many cases, unworkable. Here can be seen a predilection with matters such as equity and fairness, aspects which, at the macro-level, national Discourses and frames seek to position CPE as fair and profitable. Essentially, the Discourse of neo-liberalism, while framing the debate and offering a position which individuals and groups might take up, resist or amend, is challenged at the local level: ensuing policies centre on alternative visions of equity and fairness.

The case of this college shows the need for state policies to be flexible in allowing local leaders to adapt them to match the contexts of implementation and to achieve buy-in from various stakeholders. It is also a reminder that ideological tensions remain between policy-framers who adopt neo-liberal principles in determining the role and nature of HEIs—as contributors to the economic well-being of the nation by purveying a commodity (education) in a competitive market environment—and some academics whose personal and professional interests and identities do not chime with those principles, or whose circumstances do not permit them to participate in the new order of HEIs on an equal footing. These tensions will never be resolved entirely, but the flexibility for leaders to undertake non-subversive appropriation of state policies has the potential to remove some of the frictions that might otherwise undermine the effective positioning of the policies.

This research suggests that the introduction of CPE at the micro-level results in positions that offer sites for resistance or compliance. At its heart, the process of implementing CPE was an attempt to increase transparency and accountability at all levels. Notably, those whom the policy initially benefited were the ones who suggested the CPE audit. In this regard, CPE was positioned as an event that lauded administrative functions over other aspects of higher education work such as research. The invitation was, to some extent, a mirror of that which had prevailed previously, whereby staff in senior positions held tenure due to administrative and teaching functions. The position call redolent in the Discourse sought to celebrate research as an integral part of the HE mission. Seemingly, later iterations of CPE attested to this through better alignment with work that actually was undertaken by staff at all levels.

Problematically, this was not accepted by all, and the positions offered were resisted or amended by many, particularly those at lower ranks. On this matter, it is also clear that the hierarchical nature of HE was not contested through CPE. In fact, the creation of differing grades at differing levels further drives the differentiation of staff into hierarchical categories. This did not seem to be contested outside the realms of work practice; it is notable that challenges to the form of CPE initially produced were at the level of work type and its relationship to staff grading.

It is also the case that work type engendered differing positions to be held. Wen, for example, did not feel that CPE offered much for research, whereas her counterpart felt that in an administrative sense, CPE was acceptable. Positioned here are calls for work type yet again: in one respect, the administrative overtakes research as being the marker of success. This is rather simplistic though, when one considers that at the heart of the CPE position is the use and exploitation of matrices. Indeed, the ways in which CPE deploys metrics as a means not only to measure success, but also as a means to identify the form that success should take, are demonstrative of much that is at the heart of the neo-liberal project. Here is seen the growth of numbers coming to represent that which they should be measuring, rather than the qualitative matters themselves. The drive to get all staff to a certain number within three years demonstrates the ways in which policy is data-driven, especially when such data is quantitative.

The positions offered in this project are reminiscent of those of the Global Education Reform Movement in general: the creeping advance of neo-liberal mechanisms such as data-driven audit and globalization as powers for good that can release potential while pinning down accountability. Certainly, the positions offered by CPE were not blindly accepted; in this regard, it is clear that there was much debate. And such debate is healthy for it opens up to scrutiny the ways and means by which policy is framed, explained and formed (at the local level).

Conclusion

The global neo-liberalism has driven China to implement a new CPE for generating a more productive teacher force to build world-class universities and disciplines. Through email messages, teacher and leader interviews and documentary analysis, the study found discursive discourse negotiations among the teachers and leaders in a Chinese university. Teachers' various attitudes from defiance to compliance suggested room for leaders to improve the CPE practice. To ensure the sustainability of HEIs in China, the equity and fairness issues need to be reassessed in local CPE implementation in the future.

References

Adams, P. (2016). Education policy: Explaining, framing and forming. *Journal of Education Policy, 31*(3), 290–307. https://doi.org/10.1080/02680939.2015.1084387

Adamson, B. (2012). Beyond the East-West dichotomy. In B. Adamson, J. Nixon, & F. Su (Eds.), *The reorientation of higher education: Challenging the East-West dichotomy* (pp. 284–299). CERC.

Adamson, B. (2013). Appropriating higher education from neo-liberalism. *Comparative Education Bulletin, 15*(1), 1–12.

Appadurai, A. (1996). *Modernity at large: Cultural dimensions of globalization.* University of Minnesota Press.

Bache, I., & Taylor, A. (2003). The politics of policy resistance: Reconstructing higher education in Kosovo. *Journal of Public Policy, 23*(3), 279–300.

Bamberg, M. G. W. (2004). 'I know it may sound mean to say this, but we couldn't really care less about her anyway': Form and functions of 'Slut Bashing' in male identity constructions in 15-year-olds. *Human Development, 47*(6), 331–353.

Bamberger, A., Paul Morris, P., & Miri Yemini, M. (2019). Neoliberalism, internationalisation and higher education: Connections, contradictions and alternatives. *Discourse: Studies in the Cultural Politics of Education,* 1–15. https://doi.org/10.1080/01596306.2019.1569879

Barnes, M. (2004). The use of positioning theory in studying student participation in collaborative learning activities. Paper Presented at the Annual Meeting of the Australian Association for Research in Education, Melbourne, November 28–December 2.

Burr, V. (2003). *Social constructionism* (2nd ed.). Routledge.

Central Committee of the Communist Party of China and The State Council. (1993). *The outline for reform and development of education in China.* http://www.jyb.cn/info/jyzck/200602/t20060219_10718.html

Davies, B., & Harré, R. (1990). Positioning: The discursive production of selves. *Journal for the Theory of Social Behaviour, 20*(1), 43–63.

Drewery, W. (2005). Why we should watch what we say: Position calls, everyday speech and the production of relational subjectivity. *Theory and Psychology, 15*(3), 305–324.

Gee, J. P. (2012). *Social linguistics and literacies, ideology in discourses.* Routledge.

General Office of the Central Committee of the Communist Party of China. (1999). The Central Committee of the Communist Party of China and The State Council's decision on deepening education reform and promoting quality education. http://www.chinalawedu.com/news/1200/22598/22615/22793/2006/3/he7396032197360029150-0.html

Harré, R. (2004). Positioning theory. http://www.massey.ac.nz/~alock/virtual/positioning.doc

Harré, R., & van Langenhove, L. (1999). The dynamics of social episodes. In R. Harré & L. van Langenhove (Eds.), *Positioning theory: Moral contexts of intentional action* (pp. 1–13). Blackwell.

Hollway, W. (1984). Gender difference and the production of subjectivity. In J. Henriques, W. Hollway, C. Urwin, C. Venn, & V. Walkerdine (Eds.), *Changing the subject: Psychology, social regulation and subjectivity* (pp. 227–263). Methuen.

Ministry of Personnel of the People's Republic of China. (2005). Interim provisions for the open recruitment of personnel in public institutions. http://sydw.offcn.com/2011/1104/14266.html

Ministry of Personnel of the People's Republic of China. (2007). Guiding opinions on the management of the post setting arrangement in higher education. http://www.docin.com/p-30877257.html

Mok, K. H., & Chan, D. K. K. (2012). Challenges of transnational higher education in China. In B. Adamson, J. Nixon, & F. Su (Eds.), *The reorientation of higher education: Challenging the East-West dichotomy* (pp. 113–133). CERC.

O'Malley, B. (2021). *56 university presidents commit to joint action on SDGs.* https://www.universityworldnews.com/post.php?story=20210331092107403

Pecheritsa, E. (2022). Formative assessment for lifelong learning, effective teaching, and sustainable development in Russia. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia:*

Policies, practices, and developments (pp. 217–229). Springer. http://doi.org/10.1007/978-981-19-5104-6_13.

Peters, M. A., & Tina Besley, T. (2018). China's double first-class university strategy. *Educational Philosophy and Theory.* https://doi.org/10.1080/00131857.2018.1438822

Rizvi, F., & Lingard, B. (2010). *Globalizing education policy*. Routledge.

Shan, H., & Shibao, G. (2014). Massification of Chinese higher education. In M. Kariwo, T. Gounko, & M. Nungu (Eds.), *A comparative analysis of higher education systems: Issues, challenges and dilemmas* (pp. 9–23). Sense.

Sheng, Y. (2007). Using post appointment and distribution as a lever to optimize the teachers' independent innovation environment. *Researches on Chinese University Teachers, 3*, 17–20.

Slocum-Bradley, N. (2009). The positioning diamond: A trans-disciplinary framework for discourse analysis. *Journal for the Study of Social Behaviour, 40*(1), 79–107.

Song, J. (2017). Creating world-class universities in China: Strategies and impacts at a renowned research university. *Higher Education.* https://doi.org/10.1007/s10734-017-0167-4

Stromquist, N. (2012). Higher education and the search for excellence in US universities. In B. Adamson, J. Nixon, & F. Su (Eds.), *The reorientation of higher education: Challenging the East-West dichotomy* (pp. 165–183). CERC.

Tan, C., & Chua, C. S. K. (2014). Education policy borrowing in China: Has the west wind overpowered the east wind? *Compare: A Journal of Comparative and International Education,* 45(5), 686–704.

Tan, S.-L., & Moghaddam, F. M. (1995). Reflexive positioning and culture. *Journal for the Theory of Social Behaviour, 25*(4), 387–400.

Tian, M., & Lu, G. (2017). What price the building of world-class universities? Academic pressure faced by young lecturers at a Research-Centered University in China. *Teaching in Higher Education, 22*(8), 957–974.

Van Langenhove, L., & Harré, R. (Eds.). (1999). Introducing positioning theory. In *Positioning theory: Moral contexts of intentional action* (pp. 14–31). Blackwell.

Wen, W., & Hu, D. (2018). The emergence of a regional education hub: Rationales of international students' choice of China as the study destination. *Journal of Studies in International Education, 1*(23). https://doi.org/10.1177/1028315318797154

Willig, C. (1999). *Applied discourse analysis: Social and psychological interventions.* Open University Press.

Worthington, F., & Hodgson, J. (2005). Academic labour and the politics of quality in higher education: A critical evaluation of the conditions of possibility of resistance. *Critical Quarterly, 47*(1–2), 96–110.

Xu, J. (2021). Up-or-out, the university is also in 996, the performance dilemma of young teachers. https://xw.qq.com/cmsid/20210108A0GSES00

Yang, R. (2008). Transnational higher education in China: Contexts, characteristics and concerns. *Australian Journal of Education, 52*(3), 272–286.

Yang, R. (2012). Cultural perspectives on higher education reforms in China since 1978. In B. Adamson, J. Nixon, & F. Su (Eds.), *The reorientation of higher education: Challenging the East-West dichotomy* (pp. 148–164). CERC.

Yu, Y., & Ji, C. (2014). On the fairness in performance evaluation of university teachers. *Journal of Yangzhou University*, (3):39–42.

Zhang, W. (2013). Discussion on the university appointment under the teachers' performance evaluation system. *New West (Midmonth Theory Edition), 11*, 99–100.

Zhang, W., & Zhang, M. (2020). Difficulties of academic professions of young faculty and institutional reform paths in the context of the appointment system: The perspective of new institutionalism. *Journal of Higher Education Management, 4*, 52–60.

Zheng, J., & Kapoor, D. (2020). State formation and higher education (HE) policy: An analytical review of policy shifts and the internationalization of higher education (IHE) in China between 1949 and 2019. *Higher Education.* https://doi.org/10.1007/s10734-020-00517-2

Zhu, J. (2013). On motivation effects of teacher appointment system in Universities of Anhui. *Shenyang College News (social Science Edition), 15*(1), 81–84.

Zipin, L., & Brennan, M. (2012). Governing the claims of global futures within Australian higher education. In B. Adamson, J. Nixon, & F. Su (Eds.), *The reorientation of higher education: Challenging the East-West dichotomy* (pp. 247–268). CERC.

Luxi Zhang is an Associate Professor and Postgraduate Supervisor in the Foreign Languages College, Zhejiang Gong'shang University (Hangzhou, China). She obtained her master's degree from the University of Bath in UK and her doctoral degree from the Education University of Hong Kong. She has been teaching English for Chinese university students for fifteen years. Her areas of interests are English language teaching, educational policy, corpus linguistics and discourse analysis. She had published around twenty articles and four books. She is now leading several projects in China, including a grant from *the National Social Science Fund of China.*

David Sorrell has over twenty years primary, secondary and tertiary teaching experience in the United Kingdom, Hong Kong, mainland China and Macau. He undertook his Bachelor of Education and Master of Arts (Education) degrees in the United Kingdom, and Doctor of Education degree at The Education University of Hong Kong (EdUHK). He has published journal articles, authored and co-authored book chapters, and co-edited a book. Currently, David is Vice President of The International Association of Multilingual Education. He serves on the executive committees of The Comparative Education Society of Hong Kong (CESHK) and The Hong Kong Educational Research Association (HKERA), and is a Lifelong Fellow of The Asia Pacific Educational Research Association (APERA). David also serves on the Editorial Board of The International Journal of Comparative Education and Development as an Associate Editor. His research interests include second language acquisition, internationalism and comparative education.

Paul Adams is Senior Lecturer—Curriculum and Pedagogy Policy at the University of Strathclyde, Glasgow, Scotland. He predominantly teaches and researches in the areas of education policy, education politics, pedagogy, teacher education and career long professional learning. Most of his research is conceptual or theoretical in orientation, with forays into the empirical most of which is conducted with international collaborators. In this latter vein, he is Co-PI on the Scottish Government funded project, Measuring Quality in Initial Teacher Education (www.MQuITE.scot). Methodologically, he favours a social constructionist approach to understanding how pedagogy can be accessible, using Positioning Theory. Paul is a member of the editorial boards for Education in the North and Education 3 to 13. He regularly reviews for numerous peer review journals and has been invited to speak in many countries.

Bob Adamson is Visiting Professor in Curriculum & Comparative Education at University of Nottingham Ningbo China. He formerly held the UNESCO Chair at The Education University of Hong Kong. He publishes in the fields of English language teaching, teacher education, comparative education, and curriculum studies. His books include *Trilingualism in education in China: models and challenges* (co-edited with Anwei Feng, 2015), *China's English: a history of English in Chinese education* (2004), *Curriculum, schooling and society in Hong Kong* (with Paul Morris, 2010), and *Comparative education research: approaches and methods* (co-edited with Mark Bray and Mark Mason, 2007, 2014). He was awarded the "European Label for Innovative Initiatives in the Field of Language Learning" by the European Union in 2006. In 2013, he was recognized by the Qinghai Provincial Government with the title of "Kunlun Expert" for his 30 years' work in Chinese education.

Chapter 13
Formative Assessment for Lifelong Learning, Effective Teaching, and Sustainable Development in Russia

Elza Pecheritsa

Introduction

In recognition of the changing demands of the twenty-first century, learning is more commonly conceptualized as a process, whereby students actively construct their own knowledge and skills. The much-quoted new learning technology presents significant assessment challenges, the resolution of which may well constitute innovation. A large amount of research established that formative assessment is a powerful means to develop student lifelong learning skills and teaching (Black & Wiliam, 1998; Hattie & Timperely, 2007; Moss & Brookhart, 2012). However, all these studies are mainly restricted to western countries, while the exploration of education based on formative assessment in Russia is still lacking.

According to the Program of International Student Assessment (PISA), the Russian education system is not outstandingly successful in preparing students for the abilities and skills that build the foundation for lifelong learning. Hence, when school graduates enter university, many of them have a lot of problems with studying because of their strategies to collect marks, rather than build learning. Mostly, this happens due to the fact that traditional assessment attributes do not include students in the learning process, and as a result, their intrinsic motivation is not stimulated. Inadequacies observed have motivated the emergence to provide more coordinated and effective approaches to assessment in all levels of education. In other words, if students are to be prepared for learning throughout life, they must be provided with opportunities to develop the capacity to assess and regulate their own learning as they progress through primary, secondary, and higher education (Amonashvily, 1984; Bolotov et al., 2013; Fishman & Golub, 2007; Pinskaya, 2013).

E. Pecheritsa (✉)
Innovations Council of the Teachers Professional Re-Training Institute of Tomsk Region, Tomsk, Russia
e-mail: inostr@edu.tomsk.ru

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_13

Recent Federal state educational standards for secondary general education of the Russian Federation (approved by the order No 413 of the Ministry for Education and Science of Russia on April 17, 2012) claimed lifelong learning as the key principle of teaching and articulated the requirements to the intended student learning outcomes (personal, transdisciplinary, and subject specific), with the aim that teachers should develop student universal learning attributes (ability to learn). In particular, these learning outcomes should ensure the consistency between the requirements of the standard, the educational process, and the assessment of the learning outcomes of the core curriculum. Then, changes to the school graduation examination system and entrance exams to higher education institutions, as well as the introduction of the Unified State Examination (USE), may be viewed as the most significant elements of the assessment system reform in Russia. The analysis of solutions for specific USE items provided an opportunity to develop detailed selective recommendations for teachers, methodology advisors, authors of textbooks, and developers of education standards on how to improve the teaching and learning process. At the same time, higher-level education results (general learning skills, research abilities, creative skills, physical development, etc.) are not evaluated under this exam. That is why officials and educators are discussing new forms of examination.

As for the higher education sector in the Russian Federation, the rhetoric about the value of assessment for learning does not match the reality in university courses. There seems to be a notion that although the foundations for reform in assessment are present, traditional forms of assessment are too entrenched to allow genuine change. Recognizing the discontent with current assessment practices and levels of student engagement, this chapter highlights changes in assessment in higher educational institutions (HEIs) and considers the reasons for their development, especially with reference to sustainability. This chapter explores the benefits of formative learning environments and their potential to promote learning autonomy. The purpose of this study is to explore the present sustainability efforts by Russian universities for transition to a formative style of assessment in order to illuminate their drivers. In this context, this chapter introduces the trends in education for sustainable development (ESD) policy and practice in the higher education sector and studies the case of the National Research Tomsk State University (TSU) and the National Research Tomsk Polytechnic University (TPU), which are the leading universities in Siberia.

The structure of this chapter is as follows. Firstly, it gives a brief review of the development of sustainable education and assessment across various educational sectors in Russia. Then, it shows the efforts by HEIs in the field of assessment for lifelong learning in general. After that, it examines the endeavors toward sustainability, followed by the case study of TSU. The chapter concludes by summarizing the arguments. The discussion of this chapter focuses on universities, among other HEIs in Russia, such as classical and polytechnic institutions.

The General Background of ESD in Russia

Over the last few years, the issue of sustainable development has become increasingly important in Russia. This is evident from the ongoing reform of environmental legislation in Russia, civil society initiatives and new, greener, business practices. Lifelong learning now is at the focus of the national strategy for ESD, which envisages the reorientation of attention in teaching from providing knowledge to working through and searching for possible solutions (Kasimov, 2008).

The reorientation toward sustainable development required special conditions for the creation, functioning, and further development of the whole Russian educational system of assessment at all levels: pre-school and kindergarten, primary and secondary school, higher education, lifelong professional training, and non-formal education for local communities. The methodology adopted by Russian educators who are engaged in promoting ESD is based on the following principles: that there should be variety of forms and methods of education and upbringing; interrelation with other education programs; program continuity at different levels; adaptability; consideration of local conditions; inseparability of general, professional, and environmental education; practical activities.

There are currently only 60 universities (less than 5% of the total, not counting affiliates and military academies) in Russia running professional educational programs in sustainable development as either main or additional courses. Also, Russia is one of the countries included in the program for realizing the UN Decade of Education for Sustainable Development (2005).

The Russian Federation joined various Organization for Economic Co-operation and Development (OECD) projects in the field of education, including the Assessment of Higher Education Learning Outcomes (AHELO) project in 2009. The Russian Federation Ministry of Education and Science appointed the National Research University Higher School of Economics to be the coordinator of the Russian organizations in the AHELO research. Russian experts played an active role in developing the methodology and tools for project. Russian universities' participation achieved some important results, including the adoption of international instruments for assessing the quality of higher education and the possibility of using best international experiences for the improvement of national quality assessment.

Since the year 2000, the Russian Federation has been methodically implementing the strategy of the "Education for All" program up to 2015 with one of key goals: improvement in all aspects of the quality of education, ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy and essential life skills. In June 2015, the Russian Federation hosted the International Conference on Education for Sustainable Development, held in Khanty-Mansiysk. At this meeting, it was stressed that one of its five priority action areas was to initiate the creation of model territory(ies) for approving different options of a comprehensive approach to ESD and development of proposals to integrate a whole institutional approach (WIA) criteria into assessment standards of educational quality.

The following illustrates the experience of integrating education for sustainable development in higher education. In 1995, Mendeleyev University of Chemical Technology became the first university in Russia to organize a department for the challenges in sustainable development in 1995, in order to bring knowledge of sustainability into the world of professional engineers. The higher education system for engineering in Russia is undergoing a transition to a new educational paradigm—the professional training of future specialists in a holistic manner (Sikorskaia & Savelyeva, 2022). Addressing the need for sustainable use of natural resources, energy conservation, environmental protection, prevention of technological accidents, and risk management requires the active participation of engineers, with their particular knowledge and skills. In its mission, National Research Tomsk Polytechnic University (TPU) places special emphasis on sustainable development goals: non-destructive testing and diagnostics in industrial and social fields; intellectual information-telecommunication systems of monitoring and control; rational nature management and deep processing of natural resources; traditional and nuclear energy; and alternative technologies of energy generation. Various types of learning are represented in these fields, such as team working, independent enquiry, self-management, reflective learning, effective participation, and creative thinking. From there, it is a short step to argue the need for innovative practices to assess such learning.

The Significance of Assessment System Reform in Higher Education

The universities of the Russian Federation face substantial change in a rapidly evolving global context. The quality assessment system is moving toward compatibility with European models, and independent quality assurance systems are emerging (Zhang et al., 2022). The two-cycle system of higher education has been adopted which is not only relevant in terms of the implementation of the Bologna Process but also of the contemporary social and economic situation where people have to engage in lifelong learning. The implementation of new outcome-based higher education standards and curricula started nationwide in 2011. The challenges of meeting new expectations about academic standards in the next decade and beyond mean that assessment needs to be rethought and renewed. Thus, the leading technical universities in Russia are steadily moving in this direction by introducing formative approaches to responsible learning and assessment.

Tomsk State University and Tomsk Polytechnic University are the participants of "Tuning Education Programs in Russian HEIs" project (2010–2013), which aims to prepare highly qualified staff and develop a common list of generic and subject-specific competences. This list will be used in the process of designing and developing higher education degree programs, at all levels, in the following subject areas: Ecology; Economics and Management; Education; Environmental Engineering; Information and Communication Technologies; Languages; Law; Social Work; and

Tourism. Tuning methodology concerned university teaching, learning, and assessment activities. However, benchmarking and assessment were mentioned among the critical issues and the actual weaknesses of the Tuning Russia project.

The remarks of the Tuning Russia academic staff provided evidence of a sensitivity to the need to develop further work concerning both summative and formative evaluation in higher education. In particular, the feedback and self-regulation aspects enhanced by formative assessment would seem to relate well with improving the quality of monitoring activities in the implementation of competence-based approaches to curriculum development, and specifically of the Tuning approach (Karavaeva & Kovtun, 2013; Serbati & Surian, 2014).

Hence, it is obvious that higher educational institutions (HEIs) in the Russian Federation are driven to improve academic success (Galajinsky, 2015). In the Russian context, formative assessment is defined as assessment that is designed to support learning (Fishman & Golub, 2007; Pinskaya, 2013). It is considered as frequent, interactive assessments of students' progress, and understanding to identify learning needs and adjust teaching appropriately. Summative assessment is used to measure what students have learned at the end of a unit, to promote students, to ensure they have met required standards on the way to earning certification, or as a method for selecting students for entry into further education. In general, Russian researchers share Black and Wiliam's widely cited review that assessment by teachers, whether formative or summative, is one of the developments that is considered to offer significant potential for improving pupils' learning (Wiliam & Black, 1996). But, the fact remains that changes in assessment practice have been difficult to sustain. Currently, there are three main discussions in HEIs on innovative assessment matters: formative and summative assessments; assessment tools quality and development; and the possibility of combination learning outcomes assessment and system of grading. It is notable that both formative and summative assessments are beginning to be considered in Russian education in the context of their influence on students' learning progress. The next two sub-sections provide a brief account of what has been learned during the review of recent initiatives and developments in assessment at HEIs of Tomsk region.

The Case of National Research Tomsk Polytechnic University (TPU)

The modernization of the national system of engineering education and improving the quality of technical specialists were the main agenda of the Presidential Council for Science and Education of Russian Federation on June 23, 2014. At the meeting, it was recommended to follow the concept "Conceive, Design, Implement, Operate" (CDIO), developed within the international project CDIO Initiatives guided by Massachusetts Institute of Technology, USA (Crawley et al., 2011). In 2011, TPU joined the CDIO initiative and started implementing innovative approaches to teaching practice and assessment procedures. The CDIO Syllabus provides a variety of assessment methods and tools to assess disciplinary knowledge, as well as personal and interpersonal skills; product; process; and system building skills.

The successful appropriation of CDIO teaching and assessment strategies as the basis for curricular planning and outcomes-based assessment in TPU demonstrated the effectiveness of the CDIO Syllabus for engineering universities in their drive to improve the quality of their teaching, learning, and assessment. The 12 CDIO Standards reflect lifelong learning and formative assessment ideology: program philosophy (Standard 1), curriculum development (Standards 2, 3, and 4), design-build experiences and workplaces (Standard 5 and 6), new methods of teaching and learning (Standards 7 and 8), faculty development (Standards 9 and 10), and assessment and evaluation (Standards 11 and 12).

In addition, it is important for our study that Standards 9 and 10 orient university staff to be competent in personal, interpersonal, and product and system building skills themselves, if they are expected to teach a SDIO curriculum. Moreover, a CDIO program provides support for faculty to improve their competence in integrated learning experiences (Standard 7); active and experiential learning (Standard 8); and assessing students' learning (Standard 11).

A key issue that emerged in TSU studies on CDIO skills assessment implementation was the importance of incorporating formative assessment into daily teaching activities. Formative assessment is thus seen as an integrated part of teaching, learning, and assessment. For instance, the CDIO project group of TSU educators analyzed existing tools in the educational module "Assessment of the students" learning outcomes' (Minin et al., 2015). This module was developed as a part of the continuous professional development programs (CPD) on implementation of the CDIO approach in engineering education. For the time being, two rounds of the CPD program were realized (2014–2015) and the module on assessment of learning outcomes designed with consideration of the requirements of the CDIO Standards, and best practices of assessment were implemented. According to this module, the two main principles of assessment strategy are regularity and direct measurement. Speaking about regularity, the authors emphasize that students' performance is assessed a few times per semester, at the end of semester and upon completion of a course or module, or the entire program. The principle of direct measurement means that only intended learning outcomes (in terms of knowledge, skills and attitudes) must be subject to assessment. They also highlight the importance of planning the assessment system for a course or module, including appropriate assessment and performance criteria (Chuchalin, 2014).

Significantly, this module differentiates three types of assessment: diagnostic, formative, and summative (Minin et al., 2015). Diagnostic assessment identifies the students' abilities and readiness to study a course as well as possible difficulties and is usually conducted in the form of tests, self-assessments, discussions, and brief interviews. Formative assessment is defined as aimed to assess students' achievements on an ongoing basis, in order to provide feedback and information during the instructional process, while learning is taking place. Besides, it is stressed that formative assessment can also evaluate the progress of an instructor. A primary focus of formative assessment is to identify areas that may need improvement from observations during in-class activities; reflection journals; question and answer sessions; and self and peer assessment. Summative assessment, in contrast, gathers evidence at the end of an instructional event such as a major project, a course or an entire program, including through final examinations. The module recommends that all three types of assessment are important at different stages of course planning. The selection of appropriate assessment tools should be done with consideration of course objectives. It was concluded that no single method is good for measuring a wide variety of different students' abilities.

The challenges that faced trainees of this educational module while completing the individual assignment were summarized from survey and interview responses. The main difficulties were that the assessment system was quite new for the trainees, and they needed time to analyze the program documentation; they needed more time to study the assessment methods in detail; and there was a lack of handbooks and practical materials. However, all the trainees pointed out that the work done revealed the important aspects of program design and review of the existing assessment system that had not been previously taken into account. Such data confirm the importance of formative assessment issues for faculty of Russian HEIs. Despite the challenges the faculty faced in taking steps toward the creation of a learning assessment system, from theory to practice, they recognize its importance and greater efficiency.

The Case of National Research Tomsk State University (TSU)

Tomsk State University is the oldest university in the Asian part of Russia. It is recognized as one of the 15 leading universities in Russia and committed to being at the top of the world university rankings. In 2014, this university improved its position by 100 in the QS World Universities Rankings, entering the top 500. In the QS BRICS University Rankings, Tomsk State University occupied the sixth position among Russian universities.

The university sees its mission in the advanced training of the intellectual leaders of society based on integration of the educational process with fundamental scientific research and innovative approaches (Galajinsky, 2015). University staff is now actively developing modern approaches and techniques in all areas of activity, thus expanding the range of opportunities for students and increasing their international mobility. One of the limitations is that traditionally realized independent master's and postgraduate courses do not allow students to reach educational results planned earlier because of disengaged education politics and the impossibility of organizing an effective individual educational path and, moreover, to evolve it according to the needs of potential employers.

The transition to the new model of education in TSU can be exemplified by its Strategic Academic Units (the StrAU), including Institute of Biomedicine (IB);

Institute of the Human of the Digital Era (IHDE); Institute of Smart Materials and Technology (ISMT); and TSSW: Siberian Institute of the Future (SIF). The logic of the university transition to the target model through the establishment of the StrAU is connected with understanding the pace of the technological revolution and its diversified consequences and environmental values. In this context, the Strategic Academic Units based, primarily, on the new requirements of employers, connected with technological challenges, digitization, increasing amounts of information, and the need for its systematic analysis. Accordingly, the educational process is divided into two parts: Bachelor's programs and Master's and PhD programs. In each of these parts, an expanded educational environment is organized on the principle of a "supermarket," involving distance education, further vocational education, campus courses, e-learning, and in some cases intermediate vocational education to form "world skills." This ensures the students' ability to choose and to make an operative correction of an individual educational path, which allows the university to organize effective work on talent development. A student is also provided the opportunity to participate in a research and/or an innovation and entrepreneurial track throughout the educational process (Galajinsky, 2015).

Education begins with basic courses during one to two semesters that are required for the accomplishment of further interdisciplinary tasks. At the same time, students participate in research or technological projects. Then, an independent assessment of the level reached, and the student's potential is conducted. Depending on the learning outcomes and specialization, the student's educational pathway is formulated for the next three to four years. Further, education is built on the principle of independent interdisciplinary programs, double-degree programs, and exchange education.

As we see, this modular structure corresponds to the ESD concept, as it ensures a real choice and individualization of students' educational pathways. However, this poses a challenge for the constant independent evaluation of educational results, particularly in its attractiveness to employers. The crucial question is how to involve industry representatives in educational process at all stages of program and course design, implementation, and evaluation. Learning outcomes should be reviewed and validated by key stakeholders, who can help to determine the expected level of proficiency, or standard of achievement, for each outcome. Thus, a transformation of the model of a university's educational activity is required to allow students themselves to be involved in the evaluation of their abilities and in refining their educational pathway. That is why a full reengineering of educational processes connected with the assessment system is planned.

In an effort to further sustainable educational activity, a variety of educational technologies such as problem-based learning (PBL), project and teamwork as needed by modern employers, and e-learning (Moodle, MOOCs, distance modules) are being implemented at the University 3.0 that is transforming the innovation ecosystem of TSU. These technologies support rich project work on employers' topics that are developed through continued research focused on entrepreneurial innovation. In addition, in order to attract talented, motivated, and qualified students to the master's and PhD programs, each StrAU develops campus courses (selective courses) and a pool of project tasks for the students from the bachelor's programs. Bachelor's projects are supervised by the master's and Ph.D. program students. Similar projects are offered to high school students, supervised by bachelor's students. Here, we can see proof of the realization of the peer-assessment principle supporting lifelong learning.

In September 2016, TSU launched plans for a new model of training—a so-called "wide bachelor degree," within which students of the first and second courses, having been trained in a specialty, will be able to choose further campus courses and elective subjects. The project is currently being considered by the Ministry of Education of the Russian Federation. The main idea of this initiative is to open a tutor center, where experts who will be developing individual programs for students will be trained and work. Respectively, a task of the tutor center at early grade levels is to identify opportunities, to choose and interweave into the schedule the map of resources of the higher education institution. The tutors of the center will help students to choose a place of practice, subjects of yearly essays, and areas of specialization that they have to define on the third or fourth courses. There is a discussion that this center will coordinate academic assessment as an ongoing process that requires continuous reevaluation as to whether teaching and learning processes achieve the goals and objectives defined by faculty in the academic unit. In this way, assessment creates a continuous cycle through teaching and learning processes.

One more significant project in the context of lifelong learning developments was initiated in spring 2016 by the Quality of Education Development Center (QEDC) on the topic "Students' Outlook on the Quality of Education in TSU." The purpose of this study was to explore students' thoughts regarding their own learning and explore ways to facilitate self-learning and effective teaching. During the project, a team of 18 TSU students (Year one to three Bachelor of Education students of the Faculty of Philosophy, Faculty of Psychology, and Institute of Arts and Culture) conducted a survey that offered insight into what students think of the quality of education in their university. They examined their working hypotheses about the criteria used and the matter of how students can influence the quality of education in an ongoing process.

Traditionally, the quality of education is understood by the following indicators: availability of student exchange programs; percentage of graduates with positive assessment results; qualification work examination; regularity of renewal of study materials; and even the square meters of campus space available per student. The focus group findings demonstrated that students of TSU named different aspects of the quality of education in the context of university disciplines, as follows: subject content and the level of its applicability; the quality of studying resources and their accessibility; the effectiveness of teaching and forms of students activities organized on and off-campus, and the educational standards and assessment system.

Echoing the lifelong learning concept, students ranked availability of the learning objectives and transparent criteria of learning outcomes as most important. Then, they proposed to be familiarized at the beginning of the course with the assessment criteria for the course learning outcomes, in the form of "a road guide." This guide should describe what, when, and in which format they are to submit their learning results to be assessed. They also indicated it was important to know the main "control points" for their final exam grade. In addition, this guide could contain information on how students can enhance their points or grade, for example, whether they are allowed to change the type of assignment, choose an assignment of a higher level or a more creative project.

The interviewed students also said that they expected to be given "the map of evaluation" where they could see the criteria for the total grade. It was noted that this could reduce conflicts over marking and increase the effectiveness of teaching by enabling students to be better prepared for exams. Moreover, this map could be used for ongoing feedback to allow students to see their weaknesses and strengths and plan for their improvement. In other words, students articulated their desire to become more involved in developing course requirements.

One of the demands of the focus group was related to lectures and studies. Students wanted compact handouts and demonstration teaching methods instead of having to take notes during the lecture. They indicated their readiness to make a summary on a studied topic, rather than passively accepting information presented to them. Additionally, students noted that innovative lectures could provide significant guidance to them for subsequent peer teaching and assessment through collaborative activities and work on shared projects. Their views reflect literature that suggests when rigid teaching and assessment tools are used students lose control and autonomy over their learning, reducing their intrinsic motivation (e.g., Fishman & Golub, 2007).

The challenging information gathered from students helped them to determine ways to direct their own learning processes. By encouraging students to reflect on their learning progresses, evaluate the depth of knowledge they have on subject and identify areas that require further development; universities are increasing the potential success of their students (Alekhina & Korableva, 2011; Bolotov et al., 2013).

The study demonstrates that students in some cases are disengaged from the assessment process. In response, the students plan to design and introduce an ongoing questionnaire "The courses' quality assessment" to collect data on their learning, to be used for institutional improvement. Hence, there is a hope that students' activism as a bottom-up mode can stimulate changes for lifelong learning development in the faculty when both the "new learning," and its innovative assessment could otherwise be seen as mere fads that some HEI teachers may not accept as valuable or may even reject as top-down directives. One can say that in a bottom-up mode, this self-agency is a powerful device in fostering change because it draws on self-motivation. It is important here to balance top-down and bottom-up approaches. In TSU, this balance is provided by the Strategy of Changes Management in a Classical University (Galajinsky & Prozumentova, 2014) based on the involvement of all academic staff in a shared governance and as active participants in university transformation. In this context, higher education institutions need to support this change and develop a proactive learning environment.

The abovementioned efforts underline that TSU teachers, university leaders, and students are generally considered to be pivotal change agents, while government policy is most significant as an external intervention. Thanks to the tutors center and QEDC initiatives new forms of teaching and assessment have been experienced.

Reflecting on and sharing new assessment experiences with others become important elements in promoting effective professional learning, and ownership and understanding needed for successful implementation of new assessment procedures. Innovation in assessment involves sustaining a dynamic culture of readiness to change and a commitment to reflection at all levels.

Conclusion

The purpose of this chapter was to understand current assessment developments and efforts to promote sustainable lifelong learning in higher educational institutions in Russia. This chapter has found that sustainable education reforms by the universities have made them rethink and renew their approaches in the assessment of students' learning outcomes. At the same time, these efforts for lifelong forms of assessment are the drivers for sustainable development processes in higher education both at local and national levels.

The importance of formative assessment in student learning is generally acknowledged but is not well understood across higher education. Despite the abovementioned positive developments, there is a risk that conservative ideology in the assessment system in Russian education, oriented to grading and marking, will hold back understanding of the formative function of assessment by practitioners and their efforts to introduce it as an ongoing educational process at schools and universities (Zajda, 2003, 2011).

Additionally, the current assessment reform has a lot in common with other practices to support lifelong learning and continuous professional development and research. The similarities are seen from the fact that HEI reforms, in general, support improved student learning as well as improved processes for its assessment. However, there is an enduring imbalance deeply affected by the fact that the education system in Russia, as a whole, is still following outdated economic, social, scientific, or technical concepts. The challenges are not dissimilar to those in other countries, but the specific feature is a strong tradition of teacher/lecture-centered education and the leading role of the teacher and lecture in the assessment process. Higher educational institutions in Russia need to support a shift to student-centered education, where students take more ownership of their learning. As we see, in the last decade, much work has been done in this area by the Tomsk universities. Due to this change, the introduction of lifelong learning and formative assessment goes further in HEIs where the best international practices have been introduced, for example, the CPD module based on CDIO (TPU).

The benefits of formative assessment are not purely for students but also for tutors and universities as a whole. In-house support in new assessment strategies should include university-based staff development, peer support, and whole university development planning processes. It is thought that in order for university teaching staff to provide qualified and modern training, a more balanced professional development structure should be made compulsory. University teachers must be provided with more incentives to strive for further training. In the TSU case, as we have seen, the tutors' centers partially drive the improvement of qualifications among teaching staff in order to promote formative assessment of their students. TSU tutors' initiatives show how deficits, such as inadequate planning and design for professional learning and dissemination, may be mitigated by supporting teachers directly through materials, conferences, peer-to-peer dialogue, and researching their own reflective practice.

Hence, there is a need for HEIs to change education and assessment systems, taking advantage of the fact that new education standards allow a wide margin of academic freedom to ensure their curricular comply with regional and local market requirements. An innovative approach in education should be based on the assumption that the system does not only adapt to the labor market but is a source and "incubator" of learning for new ideas, innovative solutions, and breakthrough technologies and is focused on students' learning needs and interests.

A further barrier to more balanced lifelong learning reforms is the fact that a holistic assessment of learning outcomes is not yet widely in place. Exams and graduation projects still largely focus on knowledge assessment. There are normally few possibilities and clear criteria to recognize or accredit, for example, community or volunteer experiences.

One of the hopes is for tutor centers in Russian HEIs to serve as a common ground for existing sustainability efforts in teaching and learning. Thus, TSU tutors and the TPU continuous professional development program could be recommended for implementation in other HEIs, in order to improve the content and structure; teaching, learning and assessment methods, and, ultimately, the learning outcomes of their programs.

References

Alekhina, N. V., & Korableva, G. V. (2011). Innovations in educational process in the system of improvement of professional skills of university teachers. *Contemporary Scientific Technologies Journal, 1*, 108–109.

Amonashvily, S. (1984). *Teaching, assessment, grading*. Pedagogy.

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy and Practice, 5*(1), 7–74.

Bolotov, V., Valdman, I., Kovalyova, G., & Pinskaya, M. (2013). Russian quality assessment system in education: Key lessons. *The Quality of Education in Eurasia, 1*, 86–121.

CDIO Syllabus 2.0. http://www.cdio.org/framework-benefits/cdio-syllabus. Accessed 8 June 2016.

Chuchalin A (2014) Modernization of engineering education based on international CDIO standards. *Engineering Education, 16*, 15–27.

Crawley, E., Lucas, W., Malmqvist, J., & Brodeur, D. (2011). An updated statement of goals for engineering education. In *Proceedings of the 7th international CDIO conference, Technical University of Denmark, Copenhagen*. The CDIO Syllabus v2.0. http://www.cdio.org/framework-benefits/cdio-syllabus. Accessed 8 Jun 2016.

Fishman, I. S., & Golub, G. B. (2007). *Formative assessment of school children's educational outcomes samara: Publishing house "Learning literature"*.

Galajinsky, E. (2015). University as meaning of life. *Journal of Science and Education, 3*, 3–4.

Galajinsky, E., & Prozumentova, G. (2014). Coming into being of research university: Precedent and phenomenon of changes management in a classical university problems of governance. *Journal of Science and Practice, 7*(11), 5–8.

Hattie, J., & Timperely, H. (2007). The power of feedback. *Review of Educational Research, 77*, 81–112.

Karavayeva, V., & Kovtun, E. (2013). Adapting the tuning programme profiles to the needs of Russian higher education. *Tuning Journal for Higher Education, 1*, 187–202.

Kasimov, N. S. (2008). *Obrazovanie dlya ustoichivogo razvitia v vyshei shkole Rosii: Nauchye osnovy I strategia razvitia* [Education for sustainable development in higher education in Russia: Scientific basic and development strategy] (p. 238). Geography Faculty of MSU Publ.

Minin, M., Kriushova, A., & Muratova, E. (2015). *Assessment of the CDIO syllabus learning outcomes: From theory to practice.* Paper presented at the international conference on Interactive Collaborative Learning (ICL), Florence, Italy.

Moss, C. M., & Brookhart, S. M. (2012). *Learning targets: Helping students aim for understanding in today's lesson.* ASCD.

Pinskaya, M. A. (2013). *New forms of assessment*. Prosveshchenie.

Sikorskaia, G., & Savelyeva, T. (2022). Vocational cum pedagogical tertiary education and sustainable development in Russia. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 179–195). Springer. http://doi.org/10.1007/978-981-19-5104-6_11.

Surian, S., & Surian, A. (2014). Developing reflection on competence-based learning: The Russian experience with the tuning approach. *Tuning Journal for Higher Education, 1*(2), 463–481.

Torrance, H., & Pryor, J. (2001). Developing formative assessment in the classroom: Using action research to explore and modify theory. *British Educational Research Journal, 26*(5), 615–631.

Wiliam, D., & Black, P. (1996). Meanings and consequences: A basis for distinguishing formative and summative functions of assessment. *British Educational Research Journal, 22*, 537–548.

Zajda, J. (2003). Lifelong learning and adult education: Russia meets the west. *International Review of Education, 49*(1), 111–132.

Zajda, J. (2011). Current trends in lifelong learning in the Russian federation: Current developments. *Second International Handbook of Lifelong Learning, 26*, 441–454.

Zhang, L., Sorrell, D., Adams, P., & Adamson, B. (2022). Creating a sustainable college performance evaluation in China. In T. Savelyeva & Gao, F. (Eds.), *Sustainable tertiary education in Asia: Policies, practices, and developments* (pp. 197–215). Springer. http://doi.org/10.1007/978-981-19-5104-6_12.

Elza I. Pecheritsa is Associate Professor of Pedagogy and Chair of the Innovations Council of the Teachers Professional Re-training Institute of Tomsk, Russia. In 2006–2008 she was the regional representative within the research group of educators from Russia and worked in Britain on cultural studies teaching materials and syllabus projects on reader development. Her current research focuses on the role that sources of co-creative pedagogy play in cognition and learning, and supports reflective practice and ongoing development. She has over 50 research papers published in refereed journals and conference proceedings and has authored the Federal Innovative Program of the Ministry of Education of the Russian Federation *Professional Development Service for Teachers and school leaders.* She is a two-time recipient of the honorable signs of the Ministry of Education *For Contribution in the Development of Education in Russia* and *The High Achiever of Education.*

Chapter 14
Conclusion—Towards a General Framework of Sustainable Tertiary Education

Tamara Savelyeva

For us, the editors and contributors of this volume from different parts of Asia as 'Greater (Eur)Asia',[1] advancing universities to sustainability is a professional mission. We contributors share a common understanding that propelling the field of tertiary education for sustainability or 'sustainable tertiary education' is an imperative for global development. This imperative is not an urgency in terms of greater amount, because less could be more for global development (Hickel, 2020). As reflected in the chapters of this volume, our tertiary institutions are not only in a frontline of combatting global developmental challenges, but they also share their loads in addressing critical sustainability issues. Asian region is possibly one of the most important regions of global sustainable development, considering its large territories, rich resources, fast economic growth, burgeoning demographics, and all these multiplied by high cultural diversity. It is rather paradoxical that while the region houses some of the largest economies in the world—India, Japan, and China—they also include countries with the lowest GDPs. Environmental sustainability-wise, the regional economies altogether produce over thirty billion tons of carbon emissions per year, which is over half of the world's total CO_2 emissions (Ritchie & Roser, 2019).

While addressing sustainability-related demands and pressures, Asian tertiary institutions are gathering their strength with resilience by utilizing their historically dissimilar traditions and trajectories. Tertiary education scholarship in Asia is contesting the colonial assumption that the East needs to progress to the level of

[1] The geopolitical notion of a cooperative union of China, Russia, India, as well as Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan, Armenia, Georgia, Azerbaijan, Iran, Afghanistan, and Turkey.

T. Savelyeva (✉)
The Hong Kong Institute of Education for Sustainable Development, UNESCO China, Hong Kong SAR, China
e-mail: tvs3@cornell.edu

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_14

the West. Asian scholars have been creating workable educational models and structures to embrace initially Western notion of sustainability through their commitment to international sustainability policies. After their formal adaption of the ambitious 'leaving no one behind' (UN, 2015a, p.1) global agenda for sustainable development in 2015, this policy became a key factor in encouraging sustainability action in the region.

In the process of accommodating the international agenda and its Sustainable Development Goals (SDGs) (UN, 2015), the Asian countries had to reinterpret the Western notion of sustainability through authentic lenses of their ancient, recently 'decolonized' scientific traditions and values (Savelyeva, 2016, 2017). Unlike the Anglo-European anthropocentric scientific ontologies, which position humans superior to nature, Asian educational traditions offer powerful alternatives, the ontologies of anthropocosmism or cosmoanthropism (Savelyeva, 2016, 2017; Savelyeva et al., 2019). These alternative ontologies position human beings within a cosmic web of life and postulate a reciprocal human relationship not just with the planet Earth, but with the entire Universe. The worldviews imply planetary-scale, 'non-superior human' connections with the world, and they reinterpret the Western notion of sustainability through the lens of quality relationship of an individual human being to oneself, other people, and nature (Savelyeva, 2017, 2019, 2022a; Savelyeva et al., 2021).

Approaching sustainability with this 'question of relationships' allows Asian tertiary institutions to internalize the Western notion of sustainability through their responses to national sustainability policy drivers. For instance, an exemplary Korean national SDG implementation plan, K-SDGs, places Confucius ideas of harmony and relationships at its heart (Ministry of Environment, 2019). For another instance, the Russian mainstream tertiary education adopts Noospherism—an intellectual synthesis of sciences on the principles from Vladimir Vernadsky's cosmic theory—as a formal educational subject and conceptual alternative to the Western construct of 'sustainable development' (Subbetto, 2016, 2019). China's resent investment in Confucius studies and translations (Perdue, 2021) exemplifies a nation's attempt to shape its own 'new development philosophy' for building a 'socialist country that is prosperous, strong, democratic, culturally advanced, harmonious and beautiful, and realize the great rejuvenation of the Chinese nation' (PRC, 1982/2018, p. 3).

The contributing authors have reflected on variety approaches to sustainability and particularly on the implementation of international policies from the United Nations (UN) 2015 summit and its Sustainable Development Goals (SDGs) in Asian universities. The collection of studies in this edited volume has met one of its stated objectives to identify tensions in sustainability implementation in the regions. The results of this collective intellectual effort focused on the localized sustainability in tertiary education that allowed the contributors to suggest an insightful and culturally sensitive framework for the future development of sustainable tertiary education in Asia (Fig. 14.1).

This framework is a schematic representation of general themes through this edited volume, that constitute the following main features, which countries have used in pursing sustainability in tertiary education: sustainability, institutional rationalization, and educational mechanisms.

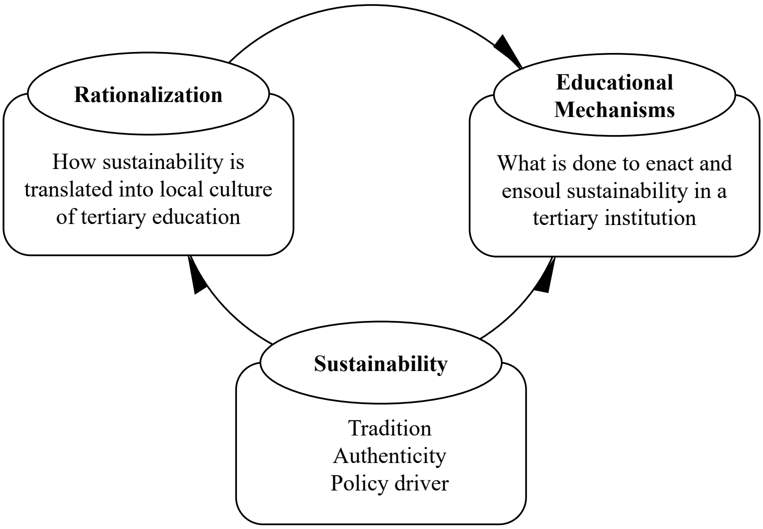


Fig. 14.1 Sustainable tertiary education framework

Sustainability. The contributions to this volume suggest that Asian and tertiary institutions treat sustainability as a tradition and an authentic concept of human relationship to oneself, others, and nature. They also adopt sustainability as a powerful national and international policy driver.

Rationalization illustrates the ways sustainability is translated into the local culture of tertiary education. This feature of the framework responds to the universities' vision of sustainability and sustainable development in relation to the overall educational goals and operationalization of sustainability concept and related policies within its administrative, research, and curricular structures and processes. The general findings of this volume describe rationalization as a call for holistic sustainability education precepts, models, and policies that

- embrace localized philosophies and traditions of Asia in order to foster sustainability consciousness;
- emphasize a principle of quality in education, teacher preparation, development, and local and international cooperation and networks;
- utilize pragmatic aspects of the growing notion of 'corporate sustainability' in Asian academia in order to achieve overarching education goals; and
- apply the principles of multiculturalism, diversity, and cultural sensitivity in order to increase sustainability-related capacities among ethnic minorities and indigenous groups.

The rationalization feature of the framework expands the common instrumental vision of sustainability as a policy driver in Asian universities (Edwin & Muthu, 2021; Liu, 2021). It complements Edwin and Mathu's research findings, who listed the following policy drivers in Indian tertiary institutions: University guidelines, reforms, incentives, pressures of international rankings, sustainability awards, standards, and certifications, emotional involvement, local legislations, and the associated penalties. The overall attitude of the findings in this book, however, is not that pragmatic, as it stresses the gradual synthesis of ideas of the localized and Western sustainability traditions rather than the instrumental power of vested interests.

Educational mechanisms illustrate structural systems, institutional gears, tools, paths, and ways to enact or ensoul sustainability mindset in the tertiary education system (Savelyeva & Park, 2012). Generally, these mechanisms describe what exactly is done to enact sustainability and how sustainability is performed and assessed within the university structure. The studies presented in this volume suggested that sustainability in Asian tertiary institutions can be implemented through a systematic processes of designing, development, and promoting:

- curricula, initiatives, and projects that foster sustainability consciousness;
- collaboration, cooperation, networking, and resource sharing in all forms and through all levels; and
- formative assessment for students and change of tightened academic output measures for academics.

The two detailed features of sustainability—rationalization and educational mechanisms—are the pillars of the framework to understand how sustainability, both as an authentic concept and foreign policy, was adopted in tertiary institutions in Asia. The framework allows to model the general understanding of sustainability's enactments and ensoulments in Asia as an authentic concept, policy driver, and practice. This general framework reflects complexity of the sustainability implementation in the highly diverse, densely populated, vast, and dynamic region. Enactments of the localized sustainability concepts and their adaptations to the international sustainability policies have not been happening simultaneously and in the unified manner across all countries in the Asian region. The framework could be extended to earlier implementation models developed in the field of educational policy and organizational learning (Adamson & Åstrand, 2016; Argyris & Schön, 1996) to the specialized arena of sustainable tertiary education. It is our hope that this generic sustainability framework could be applied, with some limitations, to the tertiary educations in other countries than those presented in this volume.

Scholarship on sustainable tertiary education in the region displays a variety of institutional rationalizations, focal points, and wide range of approaches and paths that local universities employ to break through the dominant overemphasis on the structure and competitiveness in universities that ultimately hinder authentic sustainability efforts (Barlett & Chase, 2013; Focht et al., 2020; Leal et al., 2017; Liu et al., 2022; Park & Savelyeva, 2022; Savelyeva, 2012, 2022a, b). The findings presented in this volume contribute to a newly born arena of Education for Sustainable Development Goals (ESDGs) (Leal, 2020; SDSN, 2021; Parr et al., 2022), which views tertiary institutions as key players of global sustainable development, and recognizes the contextuality, cultural sensitivity, and diversity of institutional sustainability scenarios. Regardless of their level of commitment and contribution to sustainability, the Asian tertiary institutions are moving forward in their continuous pursue of sustainability goals so as to ensure the stability, well-being, and harmony of the next generation of sustainability-minded citizens of the world.

References

Adamson, F., & Åstrand, B. (2016). Privatization of public investment? A global question. In F. Adamson, B. Åstrand, & L. Darling-Hammond (Eds.), *Global education reform: How privatization and public investment influence education outcomes* (pp 1–15). Routledge.

Argyris, C., & Schön, D. (1996). *Organizational learning II: Theory, method and practice.* Addison-Wesley.

Barlett, P., & Chase, G. (2013). *Sustainability in higher education: Stories and strategies for transformation.* MIT Press.

Edwin, G., & Muthu, N. (2021). India. Sustainability and climate action in the higher education system. In T. McCowan, W. Leal, & L. Brandli (Eds.), *Universities facing climate change and sustainability* (pp. 72–82). Global University Leaders Council.

Focht, W., Reiter, M., Barresi, P., & Smardon, R. (2020). *Studies in sustainability: Education for sustainable human and environmental systems. From theory to practice.* Routledge.

Hickel, J. (2020). *Less is more: How degrowth will save the world*. William Heinemann.

Leal, W. (2020). *Encyclopedia of sustainability in higher education* (Living). Springer.

Leal, W., Mifsud, M., Shiel, C., & Pretorius, R. (Eds.). (2017). *Handbook of best practices in sustainable development at university level* (Vol. 3). Springer.

Liu, J. (2021). Japan. Sustainability and climate action in the higher education system. In T. McCowan, W. Leal, & L. Brandli (Eds.), *Universities facing climate change and sustainability* (pp. 83–91). Global University Leaders Council.

Liu, J., Kitamura, Y., & Savelyeva, T. (2022). Building 'ecology' for transforming higher education teaching and learning for sustainability. *Asia Pacific Education Review*. http://doi.org/10.1007/s12564-022-09794-1.

Ministry of Environment of the Republic of Korea. (2019). *A report of Korean-Sustainable Development Goals (K-SDGs) 2019.* The Republic of Korea.

Park, J., & Savelyeva, T. (2022). An interpretive analysis of the 2030 sustainable development goals in Hong Kong public universities. *Asia Pacific Education Review*. http://doi.org/10.1007/s12564-022-09777-2.

Parr, A., Binagwaho, A., Stirling, A., Davies, A., Mbow, C., Hessen, D., Bonciani H., Salmi, J., Brown, M., Ramakrishna, S., Serrano, S., Schmelkes, S., Tong, S., & McCowan, T. (2022). *Knowledge-driven actions: Transforming higher education for global sustainability. Independent expert group on the universities and the 2030 Agenda.* UNESCO.

People's Republic of China (PRC). (1982). Constitution of the People's Republic of China (amend. 2018). http://english.www.gov.cn/archive/lawsregulations/201911/20/content_WS5ed8856ec6d0b3f0e9499913.html

Perdue, P. (2021). A singular entity. What is China?: Territory, ethnicity, culture and history by Ge Zhaoguang (Michael Gibbs Hill, Trans.). *London Review of Books, 43*(10). https://www.lrb.co.uk/the-paper/v43/n10/peter-c.-perdue/a-singular-entity

Ritchie, H. & Roser, M. (2019). *CO2 emissions. Our world in data.* University of Oxford, Oxford Martin School, Global Change Data Lab. https://ourworldindata.org/co2-emissions

Savelyeva, T. (2012). Escaping the "structural trap" of sustainability in academia through Global Learning Environment. In K. Bartels & K. Parker (Eds.), *Teaching sustainability/teaching sustainably* (pp. 231–241). Routledge (Taylor and Francis).

Savelyeva, T. (2016). Vernadsky meets Yulgok: A non-western dialog on sustainability. *Educational Philosophy and Theory, 49*(5), 501–520. https://doi.org/10.1080/00131857.2016.1138851

Savelyeva, T., & Park, J. (2012). Ecologism and complexity of campus sustainability discourse. In W. Leal (Ed.), *Environmental education, communication, and sustainability, Vol 34 Sustainable development at universities: New horizons* (pp. 183–192). Peter Lang.

Savelyeva, T., Lee, S., & Banack, H. (2019). Ideology to implementation: Introduction to field stories of Sustainable Development Goal 3. In T. Savelyeva, S. Lee, & H. Banack (Eds.), *SDG 3 good health and wellbeing: Re-calibrating the SDG agenda* (pp. 1–7). Emerald.

Savelyeva, T., do Livramento., G. & de Andrade, J. (2021). New knowledge ecologies and politics of technological change. In M. Peters & R. Heraud (Eds.), *Encyclopedia of educational innovation.* Springer. https://doi.org/10.1007/978-981-13-2262-4_259-1

Savelyeva, T. (2017). Peace education in anthropocene. In M. Peters (Ed.), *Encyclopedia of educational philosophy and theory* (pp. 1–5). Springer. https://doi.org/10.1007/978-981-287-532-7_593-1

Savelyeva, T. (2022a). In times of uncertainty: Advancing university sustainability model in Hong Kong. In W. Leal (Ed.), *Handbook of sustainability science in the future.* Springer. https://doi.org/10.1007/978-3-030-68074-9_122-1

Savelyeva, T. (2022b). The influence of education and family systems on the sustainability values of Hong Kong university students. *Asia Pacific Education Review*. https://doi.org/10.1007/s12564-022-09786-1.

Subbetto, A. (2016). Noosphere foundations of lifelong learning in XXI century. *Continues Education: XXI Century, 2*(14), 1–11.

Subbetto, A. (2019). *Noospherism. Volumes 1–4*. Smolny University of the Russian Academy of Education.

Sustainable Development Solutions Network (SDSN). (2021). *Accelerating education for the SDGs in universities: A guide for universities, colleges, and tertiary and higher education institutions.* Sustainable Development Solutions Network (SDSN).

United Nations (UN). (2015a). *Transforming our world: The 2030 agenda for sustainable development A/RES/70/1*. United Nations Publishing.

United Nations (UN). (2015a). *New sustainable development agenda, leaving no one behind*. Overview of the sustainable development summit. *Transforming our world for people and planet*. United Nations Publishing. Sep 25–27

Correction to: Sustainable Tertiary Education in Asia

Tamara Savelyeva and Fang Gao

Correction to: T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*, https://doi.org/10.1007/978-981-19-5104-6

The book was inadvertently published with the chapter author's incorrect family name. This information has been updated from "Fang G." to "F. Gao" in the initially published version of chapter "8". And also, the same correction has to be incorporated at the book level. The erratum book has been updated with the changes.

For chapter 10, The necessary changes in the author affiliation have not been updated in the XML. Hence, the online data shows incorrect values. Affiliations has now been changed as per the book PDFs.

The correction chapters and the book has been updated with the changes.

The updated original version of these chapters can be found at
https://doi.org/10.1007/978-981-19-5104-6_8
https://doi.org/10.1007/978-981-19-5104-6_10

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6_15

Index

A
Accounting and management consulting, 51
Agreements, 34
Anhui Province, China, 203
Anthropocosmism, 232
Appropriation, 211
Asia, 231, 234
Asian education systems, 120
Asian universities, 232
Assessment
  academic freedom, 228
  changes in, 218, 221
  diagnostic, 222
  evaluation map, 226
  formative, 217, 221–223, 227, 228
  holistic, 228
  innovative, 221, 226
  learning autonomy, 226
  strategy, 222, 227
  summative, 221–223
  through collaborative activities, 226
Assessment of Higher Education Learning Outcomes (AHELO), 219
  culture of readiness, 227
Assessment system reform
  elements of, 218
  quality, 220

B
Balanced interplays, 72
Benchmarks, 202
Bildung
  aims of, 78
Bourdieu, 132

C
Campus sustainability
  implementation, 112
  offices, 112
  ranking, 112
  tradition, 112
Capital
  cultural, 132
  economic, 131, 132, 135–138
  linguistic, 132, 133, 137
  social, 132, 136, 137
Case study, 181, 183, 192
  multiple, 165
  qualitative, 5
Central Asia, 31, 33–35, 37–39
  research on, 32
Central Asia, 31, 33, 38
China, 36, 197–199, 201–203, 210, 212
Chinese intellectual tradition, 112
Chinese Ministry of Education, 99
Christian cardinal virtues, 78
  faith, 78
  hope, 78
  liberty, 78
Citizenship Education, 147
Civic and Social Development, 109, 110, 113, 120
Civil identity, 145
Collaborations, 4
College Performance Evaluation (CPE), 198, 199, 202–212
Colleges, 197, 202, 204–208, 210, 211
Committee for International Development Cooperation (CIDC), South Korea, 14–16, 20
Compliance, 210–212
Confucian Heritage Culture, 119

T. Savelyeva and F. Gao (eds.), *Sustainable Tertiary Education in Asia*,
https://doi.org/10.1007/978-981-19-5104-6

Confucius Institute, 35–37
  locations in Kazakhstan, 37
  scholarships, 36, 37
Consumer society, 81
Consumption
  hunger zombies, 75
Continuous education, 183
Corporate University, Nizhniy Tagil, 190
Cosmoanthropism, 232
Cultural
  diplomacy, 32
  diversity, 143, 146, 149, 155
  studies, 154
  tradition, 78
  bridge across, 78
Culturally Responsive Schooling, 156
  curricular materials, 156
  multicultural teaching, 157
Curriculum, 84, 101, 159
  concept based approach, 85
  cultural sensitivity, 112
  curriculum item, 84
  designs, 85
  implementation, 159
  introduction, 111
  optimization, 109, 111, 113
  pedagogical adjustments of, 85
  political sensitivity, 114
  public voice in, 85
  re-construction, 110
  re-introduction, 111, 115, 116
  subject areas, 83
  system, 111
  themes, 72
  transformation, 110, 115

D
Dao(ism), (ist), 70, 71, 83–85
Decolonized scientific traditions, 232
Degree programs, 93, 94, 98
Discourse, 198–205, 210, 211
  negotiations, 212
  of sustainable development, 2
Documentary analysis, 205

E
Education
  holistic models of, 119
  multicultural, 146–148, 155–159
  patriotic-citizenship, 148
Educational
  achievements, 158
  mechanisms, 232, 234
  model, 96
  partnership, 31, 35
  philosophy, 110
  policies, 131, 133, 137, 138
  policy, 111, 113, 118
  reform, 110
  virtues, 78
Educational cooperation, 14, 26, 31, 33–35, 39
  2006 Joint Statement, 34
  2007 Joint Statement, 34
  agreements, 33
  multi-lateral platforms for, 34
  Sino-Kazakhstani, 34, 35, 38, 39
  with higher education institutions, 38
Educational logistics
  characteristics, 191
  functions, 191
Education for All (EFA), 13, 26, 219
  priority action areas, 219
  whole institutional approach (WIA), 219
Education for Minority Groups, 158
  adaptive environment, 159
Education for Sustainable Development (ESD), 43–46, 48, 49, 51, 59, 61–63
  experience of integrating, 220
  methodological principles, 219
  methodology adaptation principals, 219
  professional educational programs, 219
  Russia's national strategy of, 219
  university concept, 224
Education for Sustainable Development Goals (ESDGs), 234
Education politics, 114
Effective teaching, 225
Engineering education
  conceive, design, implement, operate (CDIO) initiative, 221
    challenges of, 220
    educational module, 222, 223
  modernization of, 221
Environmental wisdom, 80
Epistemological awareness, 74
Epistemological humility, 73
Equity, 131
Ethnic education, 147
Ethnic Kazakh, 37
Ethnic minorities, 129–138, 144, 148, 149, 155, 157–159
  university strategies for, 159

Ethnic/racial identities, 155
  intensification of, 151
Export-Import Bank of Korea (Korea EXIM)
  economic development cooperation fund (EDCF), 15, 17

F
Federal Law of Education, Russia, 190
Federal State Educational Standards, Russia, 218
Feedback, 205, 208, 209
Focus groups, 225, 226
Folk traditions, 156
Framework, 6, 33, 34, 233
  culturally sensitive, 232
  for educational cooperation, 34

G
General education
  sustainability component of, 120
Global
  population explosion, 82
Global forces, 201
Globalization, 91, 103, 120, 199, 202, 203
Global sustainable development
  international agenda, 232
Governance policy, 70, 77
Government, 96, 100, 102
  financial assistance schemes, 96
  incentives, 99
  role of, 96
  scholarships, 37, 38
  vision of post-secondary education, 96
Greater (Eur)Asia, 1, 2, 231
  geopolitical turn for, 2

H
Habermas, 186
Hangzhou University, 204
Higher education, 4, 31–33, 35, 36, 39, 75, 130, 132, 134, 137, 138, 227
  approach to transform, 96
  cooperation, 39
  internationalization of, 35
  outcome-based standards, 220
  regionalization of, 39
  quality of, 37
  Sino-Kazakhstani, 32
  sub-degree programs, 96
Higher Education Institutions (HEIs), 32, 36, 38, 197–199, 201, 210–212, 228
  Russian, 228
  sustainability discourse, 171
  Tuning Russia project, 221
Higher Vocational-Pedagogical Education (HVPE)
  goals of, 180
  parts of, 182
  structure of, 180
Higher Vocational Pedagogical Institutions (HVPI), 182
  mission, 183
Holistic relevance, 69
Hong Kong, 43–46, 48, 50, 51, 60, 62, 89–103, 129–134, 136–138
  education hubs, 100
Hong Kong Institute of Education for Sustainable Development (HIESD), 43–46, 48–51, 57, 59–63
Human values, 75

I
Inclusive education, 179
Indigenous students, 153
  cultural difference, 154
  cultural discontinuity, 159
  native to Sakhalin, 154
  native way of life, 153
  university scholarships for, 153
Indoctrination, 80
Institute for Workers' Education, 185
Interacting Agents
  diversity of, 188, 192
Internationalization, 31, 38, 39, 91, 99–102, 120
  China's strategy of, 39
International relations, 31
Interprofessional learning, 191

K
Karaganda State University, 190
Kazakhstan, 31–33, 35, 37–39, 190
  geopolitics of, 33
  regional influence on, 33
  students from, 37
Kazakhstani ethnic groups, 33
Knowledge-action gap, 119
Knowledge ecology, 120
Korea International Cooperation Agency (KOICA), 14, 15, 17, 19, 20, 22–24

L
Laozi, 69–86
 educational impact, 80
 educational value, 80
 relation with sustainability, 83
Leadership, 210
Learning
 internalized, 81
 reasoning mind, 80
Liberal arts, 204, 207
Liberal Studies, 83, 111
 characteristic of, 110
 curriculum, 83
 evolutionary stages of, 111
 framework, 111
 influence on sustainability consciousness, 110
 merit, 116
 philosophical ideal, 115
 philosophy, 110, 120
 reform
  stages of, 114, 116
 relation to sustainability education, 110
 resource mobilization, 115
 studies of, 116
 teachers, 83
Liberal Studies policy, 110
 evolutionary stages of, 110
Lifelong learning, 179, 180, 183, 184, 190, 192, 217–220, 222, 225–228
 barrier to, 228
 continuous cycle, 225
 transparent criteria, 225
Localization, 203
Logicality, 80, 81
Logo (ist), 69–86
 awareness or virtues, 78
 contemporary relevance, 80
Luang Prabang National University Establishment Project (LNUEP), 23

M
Mendeleyev University of Chemical Technology, 220
Method
 critical perspectives, 3
 descriptive study, 183
 documentary analysis, 205, 212
 exploratory, 3
 grounded theory, 164
 guiding philosophy of, 111, 114
 historical, 114
 holistic teaching, 117
 meaning—making, 114
 participatory, 3
 thematic analyses, 186
 trans-boundary analysis, 2
Migrant students, 152
 assimilation, 153
Millennium Development Goals (MDGs), 13, 27, 45
Ministry of Education, China, 197
Ministry of Strategy and Finance (MOSF), South Korea, 15

N
National Curriculum, 148
National Research Tomsk Polytechnic University (TPU), 218, 220, 221
 continuous professional development program, 228
National Research Tomsk State University (TSU), 218, 223
 innovation ecosystem, 224
 tutor center, 225, 228
Native people of Far East, 159
 matter of concern of, 159
Native students, 154
Nature
 deference to, 76
 encroachment upon, 81
 harmony with, 70
 removed from nature, 83
Neo-liberalism
 instruments of, 201
 neo-liberal discourse, 197, 199
 neoliberal managerialism, 172
Network cooperation, 186–188, 192
 cluster approach, 187
 educational features of, 186
 individual level of involvemen, 188
 managerial features of, 187
 meaning of, 186
 micro-level approach, 188
 quality features of, 186
 sustainable network interactions, 187
Network Cooperation Model, 187
New development philosophy, 232
New Senior Secondary Liberal Studies, 109, 110, 112
New Silk Road Economic Belt, 35
 regionalization, 35
 role of higher education in, 35
Noospherism, 232
Northern Polar Territories, 191

O
Ontologies
  alternative, 232
  anthropocentric scientific, 232
  Confucius, 232
  indigenous Daoist, 69
  Logoist, 69
Organisational network model, 186

P
Peace and sustainable development, 59, 63
Pedagogical support, 147
Performance evaluation, 197, 198, 202–204, 206, 208–210
Policy
  analysis, 199, 200
  appropriation, 201
  citizenship education, 147
  compliance with, 201
  data-driven, 212
  ethno-policy, 145
  explaining, 202, 204
  forming, 204
  framing, 198, 201
  implementation, 199, 204, 211
  making, 199
  text, 199, 202
Policy recommendations, 113
Politics
  influence of, 114
Positioning theory, 199, 200
Post-secondary education, 4
Post-secondary institutes, 103
Progressive conceptions, 82
Project 985, 201

Q
Quality assurance, 197, 198
Quality of Education Development Center (QEDC), 225, 226
  new forms of teaching and assessment, 226
Quality of education indicators, 225
Question of relationships, 232
  depends on, 158
  effect on national policies, 158
  harmony, 232
  human–nature, 2, 71
  mechanistic paradigm, 73
  nature–human, 85
  supremacy of nature, 72
  with other groups, 150
  with others, 151

R
Regionalization, 33
Resource dependence theory, 190
Resource sharing, 189, 190
Russia, 35, 143, 144, 148, 149, 180–185, 190, 191, 217–221, 223, 227
Russian, 145
  civil society, 145
  education system, 145
  minority cultures, 145
Russian Ethno-pedagogical Traditions, 156
  diversity, 157
  tolerance toward other cultures, 157
Russian Multiculturalism, 143
  history of, 143
Russian State Vocational Pedagogical University (RSVPU), 183–185, 188, 190, 191

S
Sakhalin Koreans, 150
  cultural assimilation, 150
  Koreanness, 151
  "russification", 150
Sakhalin region, Russia, 151, 153
Sakhalin State University, 149, 155
Science, 204, 207
Self-development, 198
Shanghai Cooperation Organization (SCO), 32, 34–36, 39
  framework, 32, 36
  member states, 36, 39
  scholarships, 32, 35
Shared resources, 189, 190, 192
Siberian Institute of the Future (SIF), 224
Siberian region, Russia, 5, 218
Sino-British declaration, 111
SMART Health School, 51, 59, 63
Soft power, 32, 36
Souphanouvong University (SU), 23–26
South and Southeast Asians, 129
South Korea, 26
Student enrolment, 101
Student mobility, 37
Study in China, 37
Sustainability, 74, 82, 101, 103
  authentic concept of, 233
  curriculum, 80
  doctrine, 2
  enactment, 234

ensoulment, 234
framework, 234
implementation of, 3
mindset, 234
notions of, 80
of an education system, definition, 185
systematic processes of, 234
tertiary education, 232
Sustainability consciousness, 110, 233, 234
behavioral construct of, 119
continuity, 120
features of, 117, 118
holistic construct of, 119
localized philosophies and traditions, 233
metacognitive indicators of, 119
nil participation paradox, 110, 118
novel dimensions, 117
thematic areas, 118
Sustainability education, 78, 80, 110–112
curriculum, 109, 110, 112, 120
curricular modules, 111
mechanisms of, 109
objectives and means, 111
programs, 112
secondary level, 109, 116, 120, 121
tertiary level, 109, 113, 116, 121
Sustainability of university
aspects of, 3
challenges for, 172
constant economic and social growth, 163
contributions to, 172
economic and social, 172
Sustainable development, 27, 103, 179–181, 183, 187–192, 218–220, 227
adaptive qualities, 145
global, 231
goals, 220
strategic goals of, 6
Sustainable Development Goals (SDGs), 3, 13, 14, 16, 26, 27, 44, 46, 48, 49, 63, 103
commitments and contributions to, 3
globalization-related challenges to, 3
financial gap, 113
implementation, 113, 232
qualitative indicators, 3
SDG17 Partnership for the Goals, 4
SDG3 Health and wellbeing, 3
SDG4 Quality Education, 179
teaching materials for, 120
universities contributions to, 4
Sustainable Development Solutions Network (SDSN), 113, 120
Sustainable Tertiary education, 6, 234
culturally sensitive vision for, 3
imperative for global development, 231
Sustainable Tertiary Education Framework, 233
educational mechanisms, 232, 234
features, 6, 232–234
features of
sustainability, 233
rationalization, 233
sustainability, 233
Sverdlovsk Engineer-Pedagogical Institute, 183
Systematic analysis, 224

T

Teacher preparation, 179–181, 183, 185, 190
Technical and Vocational Education and Training (TVET)
quality, 180
role, 179
Tertiary education, 4, 76, 103, 231–234
complexity of, 2
concept based approach, 84
elite, 92
elitist, 96
increased access, 100
mass, 93, 94, 103
massification of, 95–97
quality of, 6
regional education hub, 100
sustainability of, 228
traditions, 6, 231
transnational, 100
universal, 90, 91, 95
Tertiary education sustainability
adaption, 232
implementation models, 234
international policy, 232, 233
university drivers, 233
Western notion, 232
Thematic analyses, 183
Transformation, 4
SDGs-related, 4
Transformative learning framework
stages of, 119
Transitional economy, 186, 192
Transnational education, 101
2012 Shanghai Consensus, 179

U
UN Agenda 2030, 48, 60
Unified State Examination (USE), 218
University
competitive-reputation building, 164
institutional brand, 163, 171
multicultural environment, 156
organization-wide strategy, 170, 172
private, 96
public–private mix, 96
tuition fees, 99
UGC-funded, 96, 99–101
University 3.0, 224
University access, 132–134, 137, 138
University branding
influence of, 172
loyalty to institution and/or team they serve, 167, 169
staff commitments, 163, 164, 172
value-based, 172
University of Shanghai Cooperation Organization, 35, 36
language of instruction, 36
Ural region, Russia, 5, 184, 187

V
Validity, 70, 73, 80, 81, 86
Values, 100
brand, 172
Chinese, 36
common values held by a group, 168
core, 172
environmental, 224
influence on branding strategies, 172
institutional, 172
of the host society, 149
shared, 172
Vernadsky, 232
Virtuous public conducts, 71
Vocational and Technical Education (VTE), 180–182, 184, 185, 187–192
sustainable professional teacher training, 181
Vocational-Pedagogical Education (VPE)
foundation, 182
history, 182
historical accounts, 181
historical timeline, 182
innovative learning environment, 189
organisational agents, 188
goal of, 188
origin, 181
research field, 182
spatial analysis, 188
structure, 182
sustainability
definition of, 185
factors of, 185, 191, 192
systemic gap, 182
teacher preparation, 183
tradition, 181
Vocational-Professional Education
sustainability, 186
diversity of interacting agents, 185
educational logistics, 185
network cooperation, 185
shared resources, 185

W
Western China, 37
Western intellectual tradition, 112
Western sustainability traditions, 234
Worker Education University System, 184
World Education Forum (WEF), 13, 20

X
Xinjiang, China, 31, 35, 37–39
attracting students to, 38
development of, 37
domestic student recruitment in, 38
higher education institutions in, 38
international students in, 38
Kazakhstani students in, 39
regional advantage of, 38
role of, 37, 38