3 Curriculum and Assessment

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Contexts of Curriculum and Assessment Reforms in Six Countries/Regions (China, Taiwan, Hong Kong, Singapore, South Korea, and Vietnam)

In the Asia-Pacific region, there have been waves of educational reform since the 1990s. These educational reforms displayed various trends at different levels ranging from the macro-level, the meso-level, the site-level to the operational level. At the macro-level, there were trends towards re-establishing the new national vision and educational aims, restructuring the education system at different levels and market-driving, privatizing and diversifying education. At the operational level, there were trends towards using information technology (IT) and new technologies in education and paradigm shifts in learning, teaching and assessment (Cheng 2003, 6). The six countries/regions (China, Taiwan, Hong Kong Special Administrative Region (SAR), Singapore, South Korea and Vietnam) discussed in this chapter are, to some extent, under the influence of the Sinic civilization or the Confucian Heritage Culture (CHC). Economically, Hong Kong SAR, Singapore, Taiwan and South Korea have been well known to be “High Performing Asian Economies” (HPAEs) whereas China and Vietnam are seen as a growing giant and an emerging economy respectively (Ashton et al. 2002; Kennedy 2007). Gopinathan further explained that societies or “developmental states” such as South Korea, Singapore, Taiwan and Hong Kong have achieved a tight coupling between education and training systems and these societal level changes were . . . made possible by a strong belief in the value of learning in these Confucian-heritage cultures . . . made up of persistence in the face of boredom, metacognitive awareness, and an acceptance of rules governing group participation leading to a sense of diligence and receptiveness.

(2006, 215–16)

While the political and governance structures in these six places exhibit varying forms and extents of democracy (Singapore, Taiwan, South Korea, Hong Kong SAR) and communism (China, Vietnam), they have experienced curriculum and instructional reforms to a marked extent since the end of the 1990s or the beginning of the new century.

China has a long history and diverse cultural traditions that have profoundly influenced curriculum thoughts and practices. Zhang and Zhong (2003) explained that there were at least three kinds of curriculum wisdom in China which can be traced to Chinese cultural origins: Confucianism, Taoism, and Buddhism. Wang (1999), for example, compared the ideas of great Confucians, i.e., Confucius, Zhu Xi, with the French philosopher Michel Foucault in an attempt to build a creative transformation of selfhood curriculum; Li and Jin (2005) discussed the implications of a Taoist perspective for the implementation strategies of current curriculum reform in China. During the twentieth century, curriculum studies and curriculum reform in China have been influenced predominantly by practices in America and the Soviet Union. The Ministry of Education of the People’s Republic of China (PRC) (2001) issued a document on basic
education curriculum reform in 2001. Some of the aims of the basic education curriculum reform are to cultivate among students the spirit of patriotism and collectivism and love for socialism as well as to inherit and carry forward the fine Chinese traditions. In addition, students are encouraged to develop an innovative spirit, practice their abilities, and gain science and arts literacy as well as environmental awareness.

In the English version of the Grade 1–9 Curriculum Guidelines in Taiwan, the first sentence of the preface stated that “In keeping with the 21st century and the global trends of educational reform, the government must engage in educational reform in order to foster national competitiveness and the overall quality of our citizens lives” (Ministry of Education n.d., 2). The reasons for curriculum reforms are to meet national development needs and to meet public expectations. In relation to the former aspect, “the curriculum, as the major component of schooling, must be reviewed and revised continuously in order to render quality school culture and educational results, thus promoting our national development.” For the latter aspect, “In recent years, public expectations for school reforms have been growing stronger. . . . In response to social expectations, we need to conduct curricular reform with an innovative perspective so as to improve elementary and junior high schools” (Ministry of Education n.d., 2). Five components were emphasized as follows (Ministry of Education n.d., 4):

A. “Humanitarian attitudes”, which include self-understanding and respect for others and different cultures, etc. B. “Integration ability”, which includes harmonizing sense with sensibility, a balance between theory and practice, and integrating human sciences with technology. C. “Democratic literacy”, which includes self-expression, independent thinking, social communication, tolerance for different opinions, team work, social service, and respect for the law. D. “Native awareness and a global perspective”, which includes a love for one’s homeland, patriotism, a global perspective (both culturally and ecologically). E. “Capacity for lifelong learning”, which includes active exploration, problem solving, and the utilization of information and languages.

Recently, the concept of “Taiwan innovation, global strategy: Cultivating new citizens with full individual potential” was promoted by the Ministry of Education, and this encompasses three core educational concepts: (1) encouraging individual abilities; (2) welcoming globalization; and (3) supporting the disadvantaged. In addition, three to four strategies were developed for each of the four guiding principles (Table 3.1) (Tu 2006).

Table 3.1 The Concept of “Taiwan Innovation, Global Strategy: Cultivating New Citizens with Full Individual Potential” (Tu 2006)

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<tr>
<td>Enhancing language skills</td>
<td>Promoting Taiwan’s distinguishing features</td>
<td>Promoting educational internationalization</td>
<td>Supporting the economically disadvantaged</td>
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<tr>
<td>Balancing culture and technology</td>
<td>Respecting diversity of culture</td>
<td>Innovation and character expression</td>
<td>Supporting the educationally disadvantaged</td>
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<tr>
<td>Enhancing diverse and common values</td>
<td>National power advancement</td>
<td>Expanding international student exchange</td>
<td>Lessening regional disadvantages</td>
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<td>Enhancing responsibility education</td>
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In Hong Kong, some scholars such as Tse (2005, 104) argued that educational reform adopted the managerialist and market-oriented approach with a prevailing ideology of economic rationalism, which comprised core values such as quality, excellence, efficiency, cost-effectiveness, standards, choices, diversity, assurance, performance, accountability, competitive, value-added, monitoring and clients. On the other hand, Cheng (2007) explained that there was also an emphasis on the needs of the individual in the documents on educational reform by the Education Commission (2000) as follows:

This is a deviation from the tradition in Chinese societies, where individual needs are subordinated to national needs. . . . This fact perhaps counters the criticism that the reforms were prompted solely by the concerns of businesses or employers. . . . To the Education Commission, the emphasis on individual needs is not so much an ideology as a matter of reality . . . young people have to prepare themselves for the possibility of multiple careers, changing environments, as well as uncertainty and insecurity in their lives.

(2007, 260)

In Singapore, the concept of “Asian values” was promoted by former Prime Minister Lee Kuan Yew; these “Asian values” were characterized as having:

an emphasis on the group rather than the individual, duties of the individual to his family, social group, or clan and to the wider community/nation, emphasis on education, thrift, preference for consensus, a tradition of self-help, respect for elders and authority, among others. This official view of Singapore culture is strongly promoted and sees expression in language, values education and other policies in education.

(Gopinathan 1997, 251; Beresford-Hill 2001, 10)

Apart from these “Asian values,” the emphasis of which promoted the necessary ballast for Singaporeans to be conscious of their cultural roots in the face of the onslaught from Western liberal values, there were three tenets of an underlying ideology in education such as “a belief in an overriding relationship between education and the economy;” “a belief in providing equality of educational opportunity based on merit, ability and effort;” and a belief in “equity and efficiency in educational provision complemented by character development” (Kam and Gopinathan 1999, 111–12). This is a consequence of Singapore being an immigrant society and the government going out of its way to promote a meritocratic society which favors no ethnic community and encompasses an inclusive philosophy which embraces this diversity. Singapore also places significant emphasis on reducing attrition rates in the school system by promoting diversified pathways for students of different academic abilities so that they could attain their optimal potential. Known as streaming, the system channels students into one of the following streams after Primary Four: EM1, EM2 or EM3, in order of decreasing academic attainments (Caleon and Subramaniam 2005); as of 2004, the first two streams have been merged. The results of the Primary School Leaving Examinations are used to stream students in secondary school into one of the following: Normal Academic, Special/Express or Normal Technical. The argument goes that students can develop at a pace suited for their cognitive development in these streams under appropriate instructional guidance and differentiated curricula. School initiatives are encouraged to foster creativity and innovation so as to enhance national economic competitiveness in the global market. Policy initiatives, such as Thinking Schools, Learning Nation and the Master-plan for Information Technology in Education were launched in 1997. At the same time, there was a trend of marketization encouraging both school autonomy and interschool competition (Tan and Gopinathan 2000). The former gave selected schools significant leeway to run their affairs without the need to seek approval from the Ministry of Education while the latter ranked schools so that they can see how they have fared at the national level.
Since the establishment of the government, Korean national curriculum has been revised several times, and the seventh national curriculum—which was introduced in 2000 after its revision in 1997—has been implemented so far. Given the twenty-first century is marked by globalization and information, the seventh national curriculum was designed to nurture independent and creative Koreans who would lead the world in the future. In fact, the seventh national curriculum is based on the education reform plan devised by the Presidential Commission on Education Reform in 1995 (The Presidential Commission on Education Reform 1997). At that time, the Commission developed its vision of an “Open education society and lifelong learning society,” to guarantee anyone’s access to education anytime anywhere. To this end, the Commission drew up the following six guidelines on education management: 1) a shift from supplier-oriented education to learner-oriented education; 2) a transition from uniform education to diversified and specialized education; 3) a shift in focus from regulation and control to self-control and responsibility; 4) a shift in focus from uniform standardization to harmony between freedom and equality; 5) a transition from conventional education marked by blackboard and chalk to open education suitable for the twenty-first century through the use of information technology; and 6) a transformation from low quality to high quality education based on assessment (Ministry of Education and Human Resources Development 2004a, 16). The guidelines acted as the fundamental spirit of the seventh national curriculum, thus the authorities encouraged each local community and school to implement its own independent and creative curriculum, advocating learner-oriented education. Meanwhile, the introduction of the seventh national curriculum was followed by the sweeping assessment reform movement. It included the introduction of performance assessment for a comprehensive understanding of students and implementation of polices for diversification of university admission system in the context of diversification and specialization of education.

In Vietnam, fundamental curricular changes were very often related to education reforms which, in turn, were conducted depending on the political situations of the country. It is commonly accepted that there have been three education reforms in Vietnam (Pham Minh Hac 1998). The first education reform was conducted in 1950, shortly after 1945 when Vietnam got its freedom from the French colonial regime. The first education reform was mainly implemented in the liberated provinces in Vietnam. The second education reform took place in 1956 after the Liberation and Restoration of Peace in Northern Vietnam in 1954. The second education reform was intended for the newly liberated provinces in Northern Vietnam with some adjustments. The third education reform was implemented in 1979 in conjunction with the great victory of spring 1975 when Vietnam gained its independence, unity and peace. It is very obvious that the reasons behind these three education reforms was to adjust and even change the old education systems into new ones that are relevant to the new political situations. The respective curricular changes that happened within the education reforms also did not go beyond these extents. For example, during the first education reform, the curricular changes included the reduction of 13 grades to nine, exclusion of a number of subjects like foreign languages, music, art, handicraft and home economics. The curricular changes during the second education reform very much followed the education model of the former Soviet Union which comprised ten grades of schooling, and used Soviet natural sciences textbooks. The main points of curricular changes of the third education reform were to unite the two previous different education systems in Northern and Southern Vietnam. As a result, a unified general education system of 12 years was achieved in the whole country, comprising five years of primary education, four years of lower secondary education and three years of upper secondary education.

Since 1975, even though the political situation in Vietnam has been stable, socio-economic conditions have posed big challenges to the nation. In order to tackle the challenges, in 1986, Vietnam has undergone a process of “doi moi” or economic renovation, gradually shifting from
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a centrally planned to a market oriented economy (Loc 2006). In terms of education, Vietnam has issued the *Educational Development Strategies for 2001-2010*, which aims to help the country move towards a “knowledge-based economy” (World Bank 2001, 15; Kennedy and Lee 2008, 25). Nonetheless, some of the following basic issues need to be addressed and measures be implemented before the eventual goal of becoming a “knowledge-based economy” be realized (Loc 2006, 5):

A relatively complete, unified and diversified education system has been built at all levels from pre-school to doctorate training. . . . The school infrastructure has been upgraded [and] improved. The number of newly built schools that meet the national standards is increasing. . . . Enrollment is rapidly increasing, initially satisfying the learning needs of society. . . . The social equity in basic education is ensured, education in the region with ethnic minorities is changing positively. . . .

In addition, Vietnam witnessed an expansion in secondary school enrollment. While there were calls for an increase in vocational/technical schools, Holsinger (2003, 349) argued that

In the rapidly modernizing economy of Viet Nam as elsewhere, the job taken by a school-leaver is often an entry-level job, not a career path. . . . In this dynamic environment the best way to provide career path is: to ensure that the educational system offers a high standard of foundation skills such as literacy and numeracy for all students; to teach students how to learn rather than merely memorize material that becomes quickly out-of-date; and to encourage problem-solving and information-processing skills.

In this new context of socio-economic development, the curriculum that was proposed during the third education reform contained a number of weaknesses. Vu Trong Ry (2005) has identified the following main weaknesses of the third education reform’s curriculum as being:

- too academic.
- overloaded with unnecessary information.
- not linked to practice.

There was an urgent need to renovate the existing curriculum.

Table 3.2 further reveals the underlying philosophy/rationale and objectives of education/curriculum in these six countries/regions.

**Key Elements of Curriculum and Assessment Reform**

In the case of China, PRC, the nationwide, basic education curriculum reform has been connected with quality-oriented education since the 1990s. The curriculum reform in *Guidelines for Curriculum Reform of Basic Education (Experimental Draft)* aimed to change from the past practices of emphasis on knowledge transmission and textbooks, the curriculum content being seen as “difficult, complicated, prejudiced, and old,” to paying attention to student interests and experiences, as well as changing the emphasis on memorization in the process of curriculum implementation to encouraging student participation, active inquiry and acquisition of generic skills such as data collection, analytical, problem-solving and collaboration skills (Ministry of Education, PRC 2001). In the case of China, a triple-level approach to curriculum management, namely national, local and school levels, was adopted to facilitate curriculum adaptation and school-based curriculum development.
Table 3.2 Underlying Philosophy/Rationale and Objectives of Education/Curriculum in Six Countries/Regions (China, Taiwan, Hong Kong, Singapore, South Korea and Vietnam)

<table>
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<tr>
<th>Countries/regions</th>
<th>Underlying Philosophy/Rationale/Guiding Principles (Selected)</th>
<th>Aims or Objectives of Education/Curriculum</th>
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<td>China</td>
<td>The curriculum reform follows the principles of quality-oriented education and the three “faces” put forward by Deng Xiaoping, that is, education must face up to modernization, to the world, and to the future (MoE 2001). The change from examination-oriented education to quality-oriented education which the reform tries to realize also needs three transformations (Zhong 2006): 1 the transformation from “centralization” to “decentralization” in curriculum policy; 2 the transformation from “scientific discipline-centered curriculum” to “society construction-centered curriculum” in the curriculum paradigm; 3 the transformation from “transmission-centered teaching” to “inquiry-centered teaching” in the teaching paradigm.</td>
<td>The objectives of curriculum reform are: 1 to change the emphasis of past curriculum on knowledge transmission, and stress the process of learning; 2 to change the discipline-centered curriculum structure, and make it integrated and adaptable to the various needs of pupils in different regions; 3 to renew the “difficult, complicated, prejudiced, and old” curriculum content, and strengthen the relevance of curriculum with respect to students’ lives, society, and the development of science and technology; 4 to change the emphasis of teaching and curriculum implementation on rote and drill, and stress active learning and inquiry ability; 5 to change the emphasis of curriculum assessment on identification and selection functions, and stress the function of assessment in promoting the development of students, teachers, and schools; 6 to replace the centralized curriculum management with a three-level system including national, local, and school curriculum management to make the curricula adaptable to local areas, schools, and students.</td>
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<td>Taiwan</td>
<td>The curriculum will adopt the following principles: 1 to involve all aspects of daily life that correspond to the students’ mental and physical development; 2 to encourage the development of individuality and the exploration of one’s potentials; 3 to foster democratic literacy and respect for different cultures; 4 to develop scientific understanding and competencies, in order to meet the demands of modern life. (Ministry of Education n.d., 4)</td>
<td>The curriculum goals are: 1 to enhance self-understanding and explore individual potential; 2 to develop creativity and the ability to appreciate beauty and present one’s own talents; 3 to promote abilities related to career planning and lifelong learning; 4 to cultivate knowledge and skills related to expression, communication and sharing; 5 to learn to respect others, care for the community, and facilitate team work; 6 to further cultural learning and international understanding; 7 to strengthen knowledge and skills related to planning, organizing, and their implementation; 8 to acquire the ability to utilize technology and information;</td>
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Guiding principles (Curriculum Development Council 2001, i–ii):

1. The overarching principle is to help students learn how to learn.
2. All students have the ability to learn and in order to do so they should be offered essential learning experiences.
3. A learner-focused approach should be used to make decisions in the best interests of students. Diversified learning, teaching and assessment strategies should be used to suit the different needs of students.
4. Development strategies should be built on the strengths of students, teachers, schools and the wider community of Hong Kong.
5. Practices should be adopted to achieve a balance across different purposes and conflicting interests and views, e.g. across the academic, social and economic goals of the curriculum and diverse learning and teaching strategies. The purpose and modes of learning, teaching and assessment should be consistent with one another.
6. Schools have the flexibility to design their school-based curricula to satisfy the needs of their students, so long as the requirements set out in the central curriculum framework are fulfilled.
7. Curriculum development should be a continuous improvement process to help students learn better.
8. Positive thinking, with patience, celebration of small successes and tolerance of ambiguity are essential to ensuring the sustainability of change and improvement.

Overall aims of the school curriculum (Curriculum Development Council 2001, v):

1. The school curriculum should provide all students with essential lifelong learning experiences for whole-person development in the domains of ethics, intellect, physical development, social skills and aesthetics, according to individual potential, so that all students can become active, responsible and contributing members of the society, the nation and the world.
2. The school curriculum should help students learn how to learn through cultivating positive values, attitudes and a commitment to lifelong learning, and through developing generic skills to acquire, construct and communicate knowledge. These qualities are essential for whole-person development to cope with the challenges of the twenty-first century.
3. A quality curriculum for the twenty-first century should therefore set the directions for learning and teaching through a coherent and flexible framework which can be adapted to changes and the different needs of students and schools.

In line with the aims of education and the overall aims of the school curriculum, Curriculum Development Council (CDC) had set out the learning goals that our students should be able to achieve in ten years’ time as follows:

1. recognize their roles and responsibilities as members in the family, the society, the nation; show concern for their well-being;
2. understand their national identity and be committed to contributing to the nation and society;
3. develop a habit of reading independently;
4. engage in discussion actively and confidently in English and Chinese (including Putonghua);
5. develop creative thinking and master independent learning skills (e.g. critical thinking, information technology, innumeracy and self management);
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<td><strong>Singapore</strong></td>
<td>Desired outcomes of education from “The Singaporean: An Individual, a Citizen”</td>
<td>6 possess a breadth and foundation of knowledge in the eight Key Learning Areas; and 7 lead a healthy lifestyle and develop an interest in and appreciation of aesthetic and physical activities.</td>
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<td>An educated person is one responsible to himself, his family, and his friends . . . [and] An educated person is also someone who is responsible to his community and country. . . . These two roles of education reinforce and complement each other. What we would all want to develop in each individual child overlaps with what we desire of every citizen. (<a href="http://www.moe.gov.sg/corporate/desired_outcomes.htm">http://www.moe.gov.sg/corporate/desired_outcomes.htm</a>)</td>
<td><a href="http://www.edb.gov.hk/index.aspx?nodeid=2366&amp;langno=1">http://www.edb.gov.hk/index.aspx?nodeid=2366&amp;langno=1</a> (accessed August 10, 2010)</td>
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<td><strong>South Korea</strong></td>
<td>In keeping with its goal of developing a well-educated person, the seventh national curriculum is designed within the general framework as follows: 1 to design the curriculum to help the students acquire basic abilities that will enable them to lead the trends of social change; 2 to introduce a system of a national common basic curriculum and elective-centered curriculum; 3 to optimize the volume and level of the content of learning and to introduce the differentiated curriculum so as to provide students with in-depth education; 4 to diversify the contents of the curriculum and methods of instruction in consideration of each student’s ability, aptitude, and career choice; 5 to broaden the autonomy of individual schools in organizing and implementing their own curriculum;</td>
<td>At the end of primary school, pupils should: 1 be able to distinguish right from wrong; 2 have learned to share and put others first; 3 be able to build friendships with others; 4 have a lively curiosity about things; 5 be able to think for and express themselves; 6 take pride in their work; 7 have cultivated healthy habits; and 8 love Singapore.</td>
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<td>The objectives of Korea’s education are, under the ideal of hongik-ingan (contributing to the overall benefit of humankind—the founding spirit of the first kingdom in Korean history), to assist all people in perfecting their individual character, to develop the ability to achieve an independent life and acquire the qualifications of democratic citizens, and to be able to participate in the building of a democratic state and promoting the prosperity of all humankind. The goals of elementary school education, for example, are as follows:</td>
<td>(See <a href="http://www.moe.gov.sg/corporate/desired_outcomes4.htm">http://www.moe.gov.sg/corporate/desired_outcomes4.htm</a>.)</td>
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<td>1 To provide students with a variety of experience for a balanced development of both mind and body; 2 To help students develop the basic ability to recognize and solve problems in their daily lives and to provide them with the ability to express their own feelings and ideas in diverse ways; 3 To provide students with a wide range of learning experience</td>
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| Table 3.2 Continued |
6. To reinforce the quality control of education by establishing the curriculum evaluation system.


4. To develop the right attitude for understanding and appreciating Korea's unique tradition and culture;

5. To develop basic life habits necessary for everyday living and to foster the love of fellow citizens and country.


Vietnam

“The national curriculum should be appropriate to the level of progressive development of Vietnamese children, which could create favorable conditions for Vietnamese people to integrate in the community and compete in the international market”

(Hoan 2002/2003, 5).

“... forming and fostering the personality, quality and ability of a citizen; training working people who are holistically developed, faithful to the ideal of national independence and the building of a just and civilized society, who are moral and healthy, knowledgeable, and possess a sense of being a member of the community, who are dynamic and creative and know how to preserve and promote the cultural values of the nation, and accept the essence of the cultural tradition of mankind, who have the sense of discipline in an organized manner so as to meet the requirements for building and defending the fatherland”

(Hoan 2002/2003, 5–6).
With regard to evaluation and assessment, the curriculum reform made huge efforts to reduce the negative influence of “examination culture” on education, which was pervasive in China and other Eastern Asian countries where the Confucian tradition prevailed (Lee 1996; Wong and Wong 2002). Before the reform, almost all education practitioners, even most educational administrators, simply thought that student assessment consisted of tests and examinations using paper and pen, standard answers, multiple choice questions, and so on, and focusing mostly on the quantitative aspects of students’ learning outcomes. Among various tests and examinations, college entrance examination is considered to be the most important, competitive, and high-stakes measure by schools, teachers, and students, which affects curriculum and assessment practices at all levels of basic education (Gao 2007). “Teaching for exam, learning for exam” was very popular in primary and secondary schools (Zhong et al. 2003, 60), and it was especially true in senior secondary schools. However, it totally deviates from the ideas of quality-oriented education, which emphasizes whole-person development and differentiated teaching and learning (Zhan and Ning 2004, 512).

Under this condition, the curriculum reform called for the establishment of a “developmental assessment system” which could “facilitate students’ all-round development. It not only concerns students’ academic achievement, but also discovers and develops their potential in various aspects, identifies their developmental needs, and help them strengthens their self-understanding and self-confidence” (MoE (PRC) 2001). In another government document about assessment reform, the content of student assessment was divided into two parts. The first was about the assessment of general quality in learning which focuses on students’ development in (1) moral performance; (2) civil awareness; (3) learning aptitude; (4) ability to communicate and cooperate; (5) physical well-being; and (7) aesthetic literacy. The results of assessment in this part were reported by qualitative comments and rating method. The second part focused on the assessment of students’ achievement in (1) knowledge and skills; (2) learning process and methods; and (3) emotion, attitude and values, all three of which were required to be embodied in the learning of every subject or module (MoE (PRC) 2002). As regards the assessment strategies, the reform required schools to “improve internal assessment and adopt a comprehensive evaluation strategy which combines achievement test with portfolio assessment.” Besides tests and exams, schools were encouraged to assess students in a diverse, dynamic, and interactive way through observation, communication, task operation, presentation, self-evaluation and peer-evaluation (MoE (PRC) 2003). At the same time, the Guidelines required “the college entrance examination and admission system should be renewed to make it consistent with curriculum reform of basic education” (MoE (PRC) 2001) in order that the college entrance examination could become an incentive for rather than an obstacle to the reform. So the change from a national, unified examination system to a decentralized arrangement which allowed the education bureau of each province to design their college entrance examination has provided further impetus for curriculum reform.

Integrated curriculum was suggested as the main form of curriculum organization in primary schools, and a combination of integrated and disciplinary curriculum for junior secondary schools. In senior secondary education, the traditional discipline-centered curriculum was reorganized into a three-level structure. At the first level there were eight learning fields, including language and literature, mathematics, humanities and social studies, science, technology, arts, physical education and health, and comprehensive practical activities. At the second level, one or more subjects with similar natures were classified into the same learning field. For example, the field of “science” consisted of four subjects, namely, physics, chemistry, biology, and natural geography; Chinese and English comprised the field of “language and literature.” At the third level, a number of compulsory and elective modules were incorporated into each subject (MoE (PRC) 2003). Besides these changes, a notable innovation made by the reform was the adoption of integrative practical activities—which covered four areas including information technology.
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As regards curriculum evaluation and student assessment, Academic Attainment Indicators were set up for each Learning Area and a Basic Achievement Competence Test for junior high students was established, which could be used as a criteria for admission.

As regards Hong Kong, the curriculum reform emphasized the direction of “learning to learn” and five essential learning experiences (moral and civic education, intellectual development, community service, physical and aesthetic development and career-related experiences) and the curriculum framework comprised three interconnected components, eight Key Learning Areas (Chinese Language Education, English Language Education, Mathematics Education, Personal, Social and Humanities Education (PSHE), Science Education, Technology Education, Arts Education and Physical Education) nine generic skills (collaboration skills, communication skills, creativity, critical thinking skills, information technology skills, numeracy skills, problem-solving skills, self-management skills and study skills) as well as values and attitudes (Curriculum Development Council 2001). Recently, Hong Kong underwent a reform of the academic structure for senior secondary education, which would be changed from four to three years (Education and Manpower Bureau 2004). The new senior secondary curriculum framework would consist of four core subjects (Chinese Language, English Language, Mathematics, and Liberal Studies), elective subjects and other learning experiences (Education and Manpower Bureau 2007).

In the case of Singapore, the initiative of “Thinking Schools, Learning Nation” (TSLN) has four thrusts: an emphasis on creative and critical thinking, the use of information technology in education, national education (citizenship education), and administrative excellence (Gopinathan 2006). Thinking skills were introduced through the infusion of appropriate initiatives in the curriculum and pedagogy as well as through interdisciplinary project work (Tan and Subramaniam 2002). The curriculum emphasis on National Education was on “knowing the Singapore story,” which highlights how Singapore became a successful nation despite various constraints and limitations, and how students need to be cognizant of her vulnerabilities. In 2004, the document on “Nurturing Every Child: Flexibility and Diversity” was released (Ministry of Education, Singapore 2004). There were several interesting features here, one of which was a wider range of school curricula, including curricula of Specialised Independent Schools, offering new ‘O’
Level subjects and electives by schools and new programs in schools (e.g., the Programme for School-based Excellence in primary schools, and the Bicultural Studies Programme (Chinese) in secondary schools). Another feature was the broadening of co-curricular activities (CCA) to recognize student-initiated activities and community-based activities. There was also an emphasis on “Teach Less, Learn More” in which there would be trimming of syllabuses, provision of opportunities for developing life-long skills and for character development as well as teaching with a focus on understanding, questioning and critical thinking, and encouragement of independent learning and experimentation in examinations and assessment methods (Ministry of Education, Singapore 2004; 2006). With regard to evaluation and assessment, the nationwide Primary School Leaving Examinations (PSLE) are held at the end of primary six, while at the end of the secondary and pre-university education, nationwide examinations are administered jointly by the Singapore Examinations and Assessment Board and the University of Cambridge Local Examinations Syndicate. The use of an external agency for testing at the primary leaving level and its collaboration with an international examinations syndicate for testing at the post-primary levels ensures that assessment of learning is rigorous and stands up to international scrutiny. Institutional evaluation of schools has also been mandated, and this has now led to the production of School Achievement Tables, based primarily on the academic performance of the school students but also giving recognition for other attributes such as academic value-added performance, physical and aesthetic achievement, best practices, character development and national education (Subramaniam 2007). Of interest to note is the pervasiveness of information and communication technology in the curriculum—30 percent emphasis across the curriculum, and one PC for every four students in schools (Tan and Subramaniam 2002). This gives students opportunities to learn in technology-rich environments in addition to the traditional modes.

The seventh national curriculum currently applied in Korea has some unique features compared with the previous national curriculum. Most notably, its twelve-year education process involving primary and secondary educations comprises a ten-year national common basic curriculum and a two-year elective-centered curriculum. The national common basic curriculum covers students from first grade to tenth grade (or from first-grade elementary school students to first-grade high school students), and the students learn the same subjects for ten years. The national common basic curriculum consists of subject matters, optional activities, and extracurricular activities. The subject matters are divided into ten areas: Korean Language, Moral Education, Social Studies, Mathematics, Science, Practical Arts (Technology, Home Economics), Physical Education, Music, Fine Art, and Foreign Language (English). However, subject matter for grades 1 and 2, except Korean Language and Mathematics are integrated into three broad subjects: Disciplined Life, Intelligent Life, and Pleasant Life. Optional activities are divided into subject-matter optional activities, and creative optional activities. Extracurricular activities comprise student government activities, adaptive activities, self-development activities, social-service activities, and event activities. The most distinct feature of the national common basic curriculum’s subject areas is the application of differentiated curriculum to several subjects. When it comes to mathematics and English with a big achievement gap between students, students can receive different levels of education according to academic ability. Under the previous national curriculum, optional activities were only available at elementary school, but the seventh national curriculum stipulated optional activities as a separate curriculum domain at elementary and secondary school. Optional activities improve students’ self-directed learning abilities and provide schools with discretion in organizing and implementing the curriculum. Thus, the introduction of optional activities under the national curriculum ensures the time for schools to run their own programs to meet unique educational needs of schools and demands of students. In the time allocated for optional activities, schools can operate programs related to in-depth and supplementary studies of the national common basic courses and elective courses and can run a variety of activities unrelated to specific subject. The elective-centered
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Curriculum is applied to the eleventh- to twelfth-grade students who completed the national common basic curriculum (or second- to third-grade high school students). Under the elective-centered curriculum, schools offer a wide range of elective courses reflecting students’ abilities, interests, and future careers, while students can freely choose the courses according to their aptitudes and career interests. In essence, this curriculum was designed to shift from uniform, supplier-centered education to more diverse, appropriate, and learner-oriented education that allows students to choose the courses according to their abilities, interests, aptitudes, and future careers (Ministry of Education 1997).

Another feature of the seventh national curriculum is the expansion of decentralization of curriculum. With the introduction of the sixth national curriculum, decentralization of the curriculum got into full swing in Korea, and the seventh national curriculum further expanded the discretion of local communities and schools in their organization and implementation of the curriculum. Following the introduction of the seventh national curriculum, the Ministry of Education and Human Resources Development (MOE & HRD) formulated the national common and general standards, and the Metropolitan and Provincial Office of Education (MPOE) established the guidelines for organization and implementation of the curriculum reflecting each region’s unique situation. As a result, each school specifically created and implemented its own curriculum based on the national standards and MPOE’s guidelines for organization and implementation of the curriculum. Finally, the seventh national curriculum put an emphasis on quality control over the curriculum at the national level. It stipulated systemic and continuous assessment of the actual implementation of the curriculum at schools, and students’ scholastic achievement tests, evaluation of schools, and evaluation of the offices of education are periodically conducted at the national level.

With the introduction of the seventh national curriculum, assessment methods also underwent changes, with the introduction of performance assessment, and the diversification of the university admission system. Previously, Korean schools’ assessment methods were confined to an objective paper-and-pencil test. However, such an objective paper-and-pencil test was insufficient to gain a comprehensive understanding of students. This is because it focused on evaluating students’ simple memorizing ability, leading teaching and learning methods to focus mainly on knowledge transfer. Under these circumstances, performance assessment was introduced at the policy level to understand students’ true ability and characteristics and diversify teaching and learning methods. “Education Vision 2002: Creation of New School Culture,” published by MOE & HRD in 1998, officially stipulated performance assessment, requiring all schools to begin implementing performance assessment in 1999. With the introduction of performance assessment, Korean schools started evaluating students’ various products such as works, research reports, and portfolios, and certain activities like presentations, discussions, and experiments, as well as using an objective paper-and-pencil test. As a result, teaching and learning methods have become diversified. The introduction of the seventh national curriculum also caused changes in university admission system. “The 2002 Reform Plan for University Admission System” announced by the MOE & HRD in 1998 stipulated that each university should change its admission system from an examination to a screening test first applicable to those entering university in 2002. The Ministry sought to diversify the university admission system, undertaking reforms to expand the discretion of each university in their selection of students. These recent reforms led Korean universities to apply not only examination results but also various standards and screening materials (i.e. experience, qualifications, prizes, practical skills, and self-introduction) to the selection of students at their own discretion.

In Vietnam, the most recent curriculum was introduced in 2000, which is why it is often referred to as “the 2000 curriculum.” Though the 2000 curriculum was designed in that year, its actual implementation started for primary and lower secondary schools in 2002–3 and for upper
secondary schools in 2006–7. Compared with the previous curriculum, the 2000 curriculum has significant changes in the following directions (Vu Trong Ry 2005):

- The curriculum should ensure all-round education, with balanced development of moral, intellectual, physical and aesthetic abilities, and basic skills, especially vocationally oriented skills.
- The curriculum should have content that is fundamental, simplified, practical and up to date. In particular, the curriculum should be practical and strongly relevant to the context of Vietnam, reach the regional and international level, ensure proportional ratios between subjects on science and social/humanities, and provide integrated teaching and learning.
- The curriculum should ensure the implementation of innovative teaching and learning methods which would allow a shift from the one-way transfer of knowledge and skills—the “teachers read and students write down” paradigm—to a form of teaching and learning where the learning activities of students become more active, and their thinking competencies are encouraged.
- The curriculum should have the highest level of uniformity throughout the country, in particular it should include relevant standards of knowledge, and skills to be learned, and at the same time should consider specific and unique features of local provinces and regions.

Regarding curriculum reform in Vietnam, there was a general shift from a teaching and teacher-centered approach to a learning and learner-centered approach in which learners engaged in learning activities and projects, developed inquiry skills and nurtured creativity (Zhou 2006, 13). As mentioned in Article 5 of the Education Act in 1998, “the methods of education should help learners learn creative thinking and the will to progress, and develop the ability for self-learning and self-study” (Hoan 2002/2003, 3). In addition, about 15 percent of the curriculum was allocated for local curriculum (local history, geography, traditions of production and culture). There was provision for elective primary school subjects (e.g., informatics education, foreign languages and so on) for gifted students, and a bilingual program (ethnic language and Vietnamese) for ethnic students. In the primary curriculum, there were some degrees of integration. Health education, for example, was integrated into subjects like Natural and Social Studies in grades 1, 2, 3 and into Science in grades 4 and 5. History and geography was also integrated in grades 4 and 5, which “reduces the number of subjects, which suits the circumstances, as each class has only one teacher for all subjects and the time allotted for teaching is limited. The integration is also aimed at avoiding overlaps between subjects” (UNESCO 2003, 41–2). The Ministry of Education and Training (MOET) put forward a revised lower secondary school curriculum comprising ten core subjects: Vietnamese language literature, History, Geography, Civic education, Mathematics, Science, Arts, Physical education, Foreign languages, and Technology in 1998 (Duggan 2001). There was an increase in interdisciplinary coordination with integrated subjects such as natural science, social science and humanities and arts included the lower secondary curriculum (UNESCO 2003; Kennedy and Lee 2008).

For assessment, there was evaluation through periodic performance-based tests (four times per school year) and assessment indicators were established to gauge the enrollment/dropout rates in each grade/school year and percentage passes in the national graduation examinations at primary and lower secondary levels (Hoan 2002/2003, 13).

Regarding assessment, the 2000 curriculum suggests the following (Vu Trong Ry 2005):

- Assessment should not only focus on the level of mastering of the knowledge and skills of students.
- Assessment should take into account of the developmental levels of students.
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- Assessments should not be conducted only by teachers. Self-assessment by students and peer assessment among students should be encouraged.
- New assessment techniques that ensure higher levels of objectivity and reliability should be encouraged.

Similarities and Differences, and the Way Forward: Challenges and Prospects

While the six countries were under the influence of similar CHCs, comparisons need to be cautious and qualified as they have different histories of educational reform, political systems and levels of economic development. Nonetheless, it is interesting to note that almost every country/place in this chapter connected their rhetoric of curriculum reform to maintaining an openness and competitiveness in a global or knowledge economy. This is in line with the functionalist perspective of education and the trend towards re-establishing new national visions and educational aims in many Asian countries (Cheng 2003). Corrales (1999, 24) succinctly argued in the light of past experiences of some Southeast Asian countries such as Singapore and Thailand that

Openness to global forces exposes countries to the systemic imperative of developing a competitive economy, which encourages educational improvements. External links also can provide governments with new political allies (international advisors) and sources of advice and funding that may stimulate reform initiatives.

Nonetheless, while external forces or contexts may shape or even stimulate curriculum reforms, there were variations in the outcomes across these six countries.

In addition, not every country (e.g., China and Vietnam) has big open-economies or substantial high-value-added enterprises that demand high-skill workers. Their connections with the outside world and the global society could on the one hand maintain strong ties with international trends and on the other, might “combat provincialism, improve standards, increase accountability of state officials, and imbue reforms with legitimacy, political power and resources, etc.” (Corrales 1999, 25).

The six places also exhibited varying degrees of local or school-based curriculum development. In Korea, Hong Kong and Singapore, there were signs of reducing curricular load and introducing integrated subjects or key learning areas. Traditions and examination cultures, however, maintained the allocation of curriculum time to school subjects. In Vietnam and China, there was a trend of decentralization with flexibility for local or regional inputs and adaptation of national core curricula (Kennedy and Lee 2008). In addition, there was a trend towards using information technology and new technologies in education in some of these six places. In Hong Kong, information technology in education was identified as one of the four key tasks in curriculum reform. In Korea, a White Paper, “Adapting education to the Information Age,” was published, which included four goals for using information and communication technology (ICT) in elementary and secondary schools (Ministry of Education & Human Resources Development, Korea Education & Research Information Service 2003, 8):

First, support—primarily government-subsidized PCs and Internet access in the classroom—will be given to teachers to enhance their ability to use ICT. . . . Second, a support system for teachers and course curriculum in every subject will be put in place. . . . Third, a system which allows special classes for slower learners and independent study for all students will be created. . . . Fourth, educational specialists will conduct extensive research into the most effective ways of teaching the use of ICT.
In Singapore, the Masterplan II for IT in education was announced in 2002. The Incubator School Scheme was set up to “support and recognise schools which explored the innovative use of IT to enhance teaching and learning” and a “Classroom Performance System as a tool for teachers to obtain immediate feedback on each student’s basic understanding during a lesson in class” was explored (Ministry of Education, Singapore 2006). Nonetheless, in less developed countries such as China, there was still a giant digital gap, especially in backward regions or provinces (Zhou 2004). In Vietnam where the budget allocation per student was low as well as school facilities and infrastructure inadequate (Loc 2006, 8), the improvement of teaching methods had not brought ICT as a main focus. Rather, the approach is to “use learning/teaching aids properly, encourage teachers to make simple teaching aids using local low-cost materials, gradually increase the use of technical aids/means where possible” (Hoan 2002/2003, 12).

Based on the previous discussion and existing literature, two key issues are presented as propositions, which serve to sketch an initial map of where inquiry and planned action may proceed in the future (Walker and Dimmock 2000; Lee et al. 2004).

Rediscovery and Appreciation of Traditional Values as well as Strengthening Moral Education and Redefining National Citizenship in the Context of Globalization and the Knowledge Economy

In some countries and places such as Singapore, Taiwan and Hong Kong SAR, there is an increasing attention on citizenship education in curriculum reform. Hong Kong SAR, after moving to Chinese sovereignty in 1997, placed an emphasis on moral and civic education, and recently also on “Guoqing Jiaoyu” which “involve values such as national identity, responsibility and commitment to improving society and our nation” alongside the preparation of young people to “meet the challenges of a knowledge-based, interdependent and changing society, as well as globalization, fast technological development, and a competitive economy” (Curriculum Development Council 2001, i and 23). Some scholars such as Kennedy (2007, 813), however, pointed out that there was a co-existence of liberalism in the economic sphere and conservatism in the personal and political spheres in terms of a Hong Kong “knowledge worker” as a loyal citizen of China, who lives within the hierarchies of the family, the society and the state. In the Asian context, it was further remarked that “Currently, the liberalizing discourses of economic and curriculum reform sit side by side with the conservative discourses of citizenship education in Asian schools” (Kennedy and Lee 2008, 57). In the case of South Korea, there was a dual emphasis on national identity and global citizenship. The former was tied closely with ethnicity while the latter was related to the impact of “globalization.” As Kim (2004, 9) succinctly explained,

... it is interesting that both textbooks [the grade 10 Moral and senior high school Social Studies] emphasize keeping our own Korean identity fitting to the globalization trend. In other words, the seventh national curriculum seems to insist people should have strong national/ethnic identity and world citizenship at the same time. It is understood as an effort to remake citizens with a broad outlook beyond the narrow nationalist identity.

In the case of Singapore, curriculum planning tended to be a centralized and rationalist model with a rhetoric of “process model” and taking environmental education as an example, “the Singapore Government has been remarkably successful, but in doing so it has largely taken ethical issues with regard to the environment out of the hands of classrooms, values positions being predefined and prescribed” (Wong and Stimpson 2003, 136–7). There is also an emphasis on moral and civic values inculcation as well as social cohesion among school children to counteract the possible drawbacks of material affluence and a possible bias toward social efficiency
and engineering arising from the education system (Kam and Gopinathan 1999). The Taiwan experience was unique and interesting. As remarked by Law (2003, 120)

the engagement in economic globalization in Taiwan does not necessarily lead to the dominance of global forces over domestic forces, the disempowerment of the state and the undermining of local cultures and values. On the contrary, Taiwan accommodates different spectra of plurality and demonstrates the co-existence of democratization, localization and engagement in economic globalization during social transformation and education reform.

This was exemplified by the de-emphasis of education in subtracted Chinese ethnonationalism, the incorporation of local languages into the formal curriculum and a shift in focus to Taiwan’s geography and history (Law 2003).

**Balance between Top-down and Bottom-up Initiatives: Importance of Teacher Participation in, and Teacher Development for, Local or School-based Curriculum Development**

In some countries and places such as Taiwan, China and Hong Kong SAR, there has been an advocacy of school-based curriculum development (SBCD) as an agenda for curriculum reform. In the context of increasing school (and teacher) accountability to the government and public demands, SBCD both as a means for and end of teacher empowerment faced challenges in implementation. As Huang, Yu and Chang (2006, 206) remarked in the context of Taiwan:

> Yet the advance to school-based curriculum development (SBCD), regardless of its advantages, also brings about some misunderstandings and panic among teachers and parents. As the curriculum elasticity is increasing, issues such as teachers’ competencies for designing curriculum, curriculum evaluation, and other supplementary measures must be put in place. What is more, whether curriculum autonomy is implemented with teachers’ active involvement is called into question. . . .

In the case of Hong Kong, there was a period of time when teachers resisted educational and curriculum reforms. A big lesson to be learned was the building of trust and dialogue among the stakeholders (especially teachers) so that they felt a sense of ownership of the curriculum development process. For China, “[t]eachers who receive high evaluations of their performance on a regular basis and teachers who have access to professional development activities tend to be better implementers than when either one of these criteria is not met” (Kennedy 2007, 819). In the case of South Korea, there were remarks that

> . . . because of the general democratization of the country ‘nowadays the voices of teacher’s unions and association have become louder’. As they are responsible for the implementation phase of the reforms, the final impact of the reforms largely depends on teachers’ perception, knowledge and understanding of the changes. This being the case, the participation of teachers in design and implementation can be crucial to successful curriculum change.

(UNESCO 2003, 21)

In addition, teachers’ lack of experience in local curriculum development was an issue of concern. There were calls for the development of a new role for teachers as researchers and curriculum developers who could develop the curriculum of discretionary time and extracurricular activities as well as manage and monitor school-based curriculum, and understand and use the new assessment system (UNESCO 2003, 69). Another challenge in the Korean
curriculum development process was insufficient decentralization, in which ten out of the 16 provincial offices of education prescribed almost the same guidelines as those in the national curriculum. There is therefore a need to provide more time, resources and personnel in both the metropolitan and provincial offices to engage in research and development endeavors related to curriculum reform (Ministry of Education & Human Resources Development 2004). In Vietnam, the National Education for All (EFA) Action Plan (2003–15) stated that

A comprehensive approach will need to include elements of all of the following: development of new pre- and in-service training programs at a massive scale for all teachers; trainers to teach these programs; availability of an adequate supply of appropriate learning materials in the classroom; new student and teacher assessment systems; timely management as well as pedagogical support and advice; continuous monitoring to adjust and strengthen activities.

(Ministry of Education and Training, Socialist Republic of Vietnam 2003, 11)

In addition, while there was some progress in the democratization of education including decentralization measures, more needed to be addressed in areas such as “delegation of decision-making powers to lower levels regarding students’ enrolment, planning and institutional management (election, appointment, . . .), etc.” and “leadership, staff empowerment, human resource management, financial management” (Loc 2006, 9). The experience of Singapore is that a centrally mandated curriculum based on ongoing cognizance of international best practices, with fine tuning to suit local conditions, provides the necessary quality control in the 360+ schools in the country. Nevertheless, whilst the curriculum is broadly defined, there is sufficient scope for teachers to infuse creative and innovative approaches when delivering pedagogical content.

With particular regards to the 2000 curriculum, which is ongoing and expected to complete its whole cycle of implementation from grade 1 to grade 12 in 2009–10, it has been evaluated as more fundamental, simplified, updated, systematic, more practical and strongly linked to the context of Vietnam. Compared with the third education reform’s curriculum, the 2000 curriculum has proved to be more progressive and more responsive to the higher demands of the present general education. However, a series of preliminary evaluations of the new curriculum has posed a number of questions that need to be addressed in the future. Loc Nguyen et al. (2007) point to the fact that within primary schools the impact of the 2000 curriculum on the achievements of grade 5 students is somewhat unclear. While the achievements of grade 5 students in Vietnamese have shown significant progress for the period from 2001 to 2007, the progress of achievements of grade 5 students in Mathematics is minimal for the same period of time. Furthermore, the relevance of the new curriculum and respective textbooks is evaluated as not high and there is still a large disparity in grade 5 students’ achievements in urban, rural and disadvantaged regions throughout the country. Analyzing the 2000 curriculum’s weaknesses, Nguyen Huu Chau et al. (2006) refer to the inadequate “implementation conditions” such as the limited capabilities of teachers, insufficient number of teaching hours, poor school infrastructure and equipment, etc.

While the six places displayed some broad similarities and differences in the nature of curriculum and assessment reforms, each made great efforts in equipping their next generation to handle the impact of globalization and contribute to the economic development of the nation/region. Each of these places found their own way to “think globally and act locally” under the impact of Chinese Heritage Culture. Whatever the approach, it is imperative to enhance teachers’ receptivity to change as well as teachers’ capacity and ownership of change (Lee 2000; Yin and Lee 2008).
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