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Curriculum Reform

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As shown by other chapters in this book, Hong Kong and Macao are fascinating in their similarities and differences. These are evident in the domain of curriculum as much as in other spheres of education. This chapter explores the nature of the similarities and differences, identifying both causes and outcomes. It does so within the framework of broader literature on curriculum reform, and shows ways in which analysis of Hong Kong and Macao contributes to conceptual understanding. Its focus is on the primary and secondary levels of education.

To provide a framework, the chapter begins with an outline of the concept of curriculum reform. It then describes and analyses the contexts of curriculum changes in Hong Kong and Macao, before turning to the processes and products of change with particular attention to the school curriculum, assessment modes and textbooks.

The Concept of Curriculum Reform

The term ‘reform’ refers here to changes in education initiated from above, usually by the central government or in the political system (Fullan 1994; Bourke 1994). Curriculum reform is defined as a type of educational reform which focuses on changes to the content and organisation of what is taught. Reform may take place at the system level and/or at the school level (Ginsburg et al. 1990; Marsh & Morris 1991). The former commonly stresses a national curriculum which strengthens national identity and contributes to modernisation of the education system. The latter commonly results from the initiatives by schools and teachers to develop teaching materials for their student needs.

Hargreaves (1995) noted the interrelationship between curriculum reform and the context of change. He indicated that patterns of educational reform are greatly influenced by social forces. Similarly, Rulcker (1991) pointed out that curriculum reform movements commonly arise from demand for school curriculum to meet changes in social conditions. Reform has a pragmatic task of translating social standards into the teaching and learning content for the purpose of preparing young people for integration into society. This chapter mainly analyses the curriculum reforms in Hong Kong and Macao towards and after the turn of the 21st century, when the two territories were undergoing rapid social changes as a result of the transfer of sovereignty to the People’s Republic of China (PRC).

Havelock (1973) distinguished between the stimulus-response model and the rational model of curriculum reform. In the stimulus-response model, changes occur from instinctive actions in response to challenges which have not been anticipated and perhaps even not fully understood. The model is reflexive, unplanned and trial-and-error in nature. The rational model emphasises an identification of objectives and related strategies in the face of challenges. Different steps are commonly taken, including a decision to do something, an attempt to define the problems, a search for solutions, and an application of possible solutions. The strategy is deliberate, and emphasises logical problem-solving.

Four areas of curriculum reform are especially pertinent for analysing the impact of political change on curriculum development in Hong Kong and Macao:

- *Personnel for curriculum development* are commonly in short supply in small states. In extreme cases, small states have only one or two specialists, or even none at all (Bray 1992c). In other states, curriculum development is well supported. These states may have curriculum units or centres, and specialists to define curriculum policy and manage curriculum development activities at different levels and in various subjects.
- *School-based curriculum development* has been promoted as an alternative to the centre-periphery approach that appeared to achieve limited results at the school level (Hughes 1991; Marsh 1997). In many education systems, priority was initially given to developing centralised curriculum which was believed to be able to strengthen national unity. In the 1980s, schools began to realise the need to supplement the centralised curriculum as well as to substitute some of its elements.
- *Assessment* is part of the school curriculum. It is the means to provide information about students' achievement and to improve their learning (Weeden et al. 2002). After colonial transition, many education authorities followed the assessment systems established by their previous regimes or took the examinations developed and run by these colonial powers so as to acquire internationally recognised credentials (Noah 1996; Bray 1997a). However, to prepare students for changing societies, assessment systems were later reformed to enhance the quality of education.
- *Textbooks* contain basic school knowledge, and convey cultural and national identity to young people. Teachers, especially those who are unqualified, rely heavily on textbooks in their teaching. In some small states, no textbooks are produced (Bray 1992c). Their textbooks are imported from overseas either from metropolitan cities or from neighbouring countries from which the small states copied their school systems. Heavy reliance on imported textbooks can result in irrelevant teaching content for local contexts (Altbach & Kelly 1988).

In this chapter, curriculum reforms in Hong Kong and Macao are described and analysed with reference to criteria including the ones listed above. The discussion focuses separately on the processes and the products. The processes of curriculum development include decision-making for the development of school curricula. The products include innovative curricula, assessment modes and textbooks. Before addressing these matters, however, the chapter presents more information on contexts in Hong Kong and Macao.

The Contexts: Patterns of Educational Provision

Dominant education patterns in Hong Kong are distinctly different from those of Macao. As pointed out by Adamson & Li in this book, Hong Kong has a fairly unified school system, albeit with various international schools outside that system. Formal schooling begins at the primary level, and lasts for six years. Secondary schools provide five years of education with an additional two years of advanced courses leading to tertiary education. In the education reform launched shortly after the change of sovereignty (Education Commission 1999), school education was categorised into two distinct levels, namely nine years of universal basic education (Primary 1 to Secondary 3) and four years of senior secondary education (Secondary 4 to 7). Subsequent proposals envisaged moving Secondary 7 to the tertiary level to create a 6+3+3 school system. Most primary and secondary schools in Hong Kong are aided, meaning that they are funded by the government but managed by voluntary associations such as religious or charitable bodies. The other primary and secondary schools are operated by the government or private organisations. Until 1998, only a minority of secondary schools overtly used Chinese as the medium of instruction, and the majority claimed to use English. English-medium schools are generally perceived to have a higher status and to provide better prospects for their students.

Macao, as also pointed out by Adamson & Li, has not had a unified school system. Instead, schools have followed four diverse models borrowed from Portugal, the PRC, Taiwan and Hong Kong. Up to the late 1990s, the principal schools which adopted the Portuguese model were funded and administered by the government. These schools were subdivided into Portuguese and Luso-Chinese types. Lessons in the former were taught solely in Portuguese, and those in the latter were taught in both Portuguese and Chinese. Other schools were operated by religious bodies, social service organisations and other private bodies. Most of these schools taught in Chinese, but some taught in English. The presence of English-medium schools under the Portuguese administration reflected market demand. Two bodies coordinated most of the private schools: the Macau Catholic Schools' Association and the Macau Chinese Education Association.

The existence of the diversified and uncoordinated school systems in Macao resulted from two main factors. First, Macao was a Portuguese colony in which official schools either directly followed or, in the case of the Luso-Chinese schools, were strongly influenced by the Portuguese education system. Second, because during the modern era Macao had no local tertiary education before 1981, students who wanted to have higher education had to go abroad, most commonly to Hong Kong, Taiwan, the PRC, and the United Kingdom. In order to guarantee the educational prospects of their students, the private schools followed the education systems of those societies. The fact that the school systems were diversified and uncoordinated meant that students could not easily change from one school to another. In the mid-1990s the Macao government endeavoured to unify the school system. The first level comprised free and compulsory basic education embracing the final year of pre-primary education, six years of primary schooling, and three years of lower-secondary education. The second level comprised three years of upper secondary education or technical/ vocational education.

The Processes of Curriculum Change

Different strategies for curriculum decision-making have been adopted in Hong Kong and Macao. In Hong Kong, important parts of the education system are highly centralised, and decision-making mostly follows a top-down, centre-periphery approach. The Education Commission is the highest advisory body in the formulation of education policies.

Curriculum development is undertaken by the Curriculum Development Institute (CDI), which is the executive arm of the Curriculum Development Council (CDC). The architects of the CDI expected it to be an independent professional body staffed by subject specialists committed to curriculum development (Education Commission 1990). However, the CDI was actually made a branch of the government's Education Department. Within the CDC, various Coordinating Committees were set up to oversee the curricula for kindergartens, primary education, secondary education, sixth forms, special education and prevocational education. In order to meet the needs of curriculum reform launched in 2001, these committees were replaced by Standing Committees responsible for early childhood education and basic education (kindergarten to Secondary 3) and for post-basic education (Secondary Forms 4 to 7). Each Standing Committee brought together various specific committees which developed the curriculum of eight key learning areas (i.e. Chinese language; English language; mathematics; science; technology; personal, social and humanities education; arts; and physical education). Various mechanisms were used by the government to control the processes of curriculum development to ensure that decision-making was compatible with central policies. These included control of working agendas, selection of members for the relevant committees, and ignoring recommendations which were incompatible with those of the government (Morris 1998, p.100).

The highly centralised approach to curriculum decision making was initially legitimised by a set of regulations produced by the Education Department. These regulations (Hong Kong, Education Department 1971) included:

- No instruction may be given by any school except in accordance with a syllabus approved by the Director of Education (para. 92.1);
- No person shall use any document for instruction in a class in any school unless particulars of the title, author and publisher of the document and such other particulars of the document as the Director may require have been furnished to the Director not less than 14 days previously (para. 92.6); and
- No instruction, education, entertainment, recreation or propaganda or activity of any kind which, in the opinion of the Director, is in any way of a political or partly political nature and prejudicial to the public interest or the welfare of the pupils or of education generally or contrary to the approved syllabus, shall be permitted upon any school premises or upon the occasion of any school activity (para. 98.1).

Especially during the 1970s, the Education Department used these regulations to exercise control over the school curriculum.

The 1980s brought growing dissatisfaction with the centralised curriculum, which was regarded as not meeting the needs of pupils and schools. The influential Llewellyn Report (1982, p.56) stated that:

To encourage curriculum development efforts, especially in the post S3 [Secondary 3] area, we believe there is merit in drawing the teaching service, as a professional force, into curriculum development and assessment practices. Strategies should be implemented to improve the coordination and communication between the agencies responsible for curriculum development and examinations. A genuine drive towards school-based curriculum selection and adaptation, together with school-based programme and pupil evaluation, would open up new horizons for teacher participation. This involvement would be from periphery-to-centre rather than the centre-to-periphery tradition which now permeates educational planning, policy making and innovation, limiting the number of teachers who can become involved in these activities. Every effort must be made to encourage innovation at the school level which, after all, is where the real work is being done.

Such statements were followed by a demand for more democracy in the wider society as a result of the announcement of the 1984 Sino-British Joint Declaration and the suppression of the pro-democracy movement in the PRC. Subsequently, measures were introduced to reduce the degree of centralisation in curriculum decision making. These included the School-based Curriculum Project Scheme in 1988, the School Management Initiative in 1991, the Target Oriented Curriculum in 1995, and curriculum adaptation in 1999. All of these initiatives appeared to emphasise the value of school control and teachers' participation in curriculum decision-making. However, as these innovations were launched and administered by the Education Department, at least some analysts regarded them as a means for the government to extend its control over the curriculum and the related activities in schools (Y.C. Lo 1999, 2001; McClelland 1991; Morris 1998, 2002).

Just before the reversion of Hong Kong's sovereignty to China, the government, endorsing Education Commission No.7 (1997), declared its determination to improve the overall quality of school education. This was followed by the launch of a long-term education reform which emphasised lifelong learning. The three key principles of the reform were "breaking down barriers and creating room for all, creating opportunities and assuring quality". The reform required a holistic review of school curriculum, language education, the assessment system, and teachers' professional development. The reform policy was supported by a re-organisation of the Education Department, which in January 2003 became part of the government's Education & Manpower Bureau (EMB).

During the early 1990s, while the Hong Kong government was bringing a more decentralised strategy into curriculum decision-making, Macao's government was moving in an opposite direction (Bray 1992b; Tang & Bray 2000). Until the late 1980s, the Macao government had adopted a *laissez faire* policy in education. The government was mainly concerned with the administration of the official schools, which comprised a small proportion in the territory, while the private schools were left to their own devices including in the curriculum domain. After the 1987 Sino-Portuguese Joint Declaration, the Portuguese and Macao governments began to recognise the need for education reform to place the territory on a firmer basis in the post-1999 era. The coordinator of the Education Reform Committee (Rosa 1991, p.35) stated that:

We have realised and already emphasised that only with the resolution of education problems can we identify policy that addresses the interest of both

Portugal and China, and ensure the steady transference of Macau's sovereignty. Ignoring this fact is not beneficial to the future of Macau. If the Macau government did nothing, it would be regarded as short-sighted and violating the benefits and needs of Macau people as well as those of Portugal and China.

The first public conference on educational reform in Macao was organised in 1989. The major issues identified were the need for compulsory education and the establishment of a unified educational system (H.K. Wong 1991).

To address these issues, the Macao government passed a set of laws (Macao, Governo de 1991) on dimensions of educational reform. An advisory Educational Council comparable to Hong Kong's Education Commission was established, and new policies including a provision of financial assistance for the private schools were considered. This was followed in 1993 by a reorganisation of the Education Department, which included redefinition of various Divisions within the Department. In this aspect, the Macao government was arguably ahead of the Hong Kong government. The work of curriculum development was first undertaken by the Education Reform Committee and then assigned to the Division of Education Research & Reform within the Department. One of the functions of the Division was to coordinate and organise the work of curriculum plans and programmes, as well as to pay attention to their experimentation.

Under the Educational Council, an ad hoc Curriculum Development Committee was set up to plan the pre-primary, primary and junior secondary curricula for achieving the goal of compulsory education. Unlike Hong Kong's CDI, which was composed of various subject and curriculum development experts, this committee was made up from government personnel, principals and senior teachers from official and private schools, and a lecturer from the University of Macau. Curriculum Reform Working Groups for various subjects were formed for the formulation of subject syllabuses. These groups comprised relevant subject teachers with university lecturers as advisors.

The Products of Curriculum Change

This section focuses on three major products of curriculum change: the school curriculum, assessment modes, and textbooks. These three products are powerful determinants of student learning.

The School Curriculum

The Hong Kong school curriculum in the 1960s and early 1970s was highly academic, and focused on inculcating the knowledge and skills derived from disciplines such as chemistry and history. Its purpose was to prepare a select group of students with high academic abilities to compete for entrance into university. With the implementation of nine years compulsory education in the late 1970s, students with a wider span of abilities and different career aspirations were brought into the school system, and the academic-oriented curriculum became less appropriate. Efforts were therefore made to reduce the academic elements and to add practical or vocational subjects such as woodwork and home economics. The period after the 1984 Sino-British Joint Declaration brought public concern to prepare students to become good citizens of the PRC. As noted by Tse's chapter in this book, the school curriculum was modified to include civic education.

The late 1980s brought further change. An initial move was a scheme of Targets and Target Related Assessment (TTRA), which evolved in 1995 into the Target Oriented Curriculum (TOC). In the new system, students were expected to master five fundamental ways of learning namely problem-solving, reasoning, inquiry, conceptualising, and communication. The TOC moved the curriculum framework from a subject focus with teacher-centred approaches to generic skills with student-centred approaches. The TOC was initially implemented through English, Chinese and mathematics in the primary school curriculum. However, the TOC disappeared after three years of formal practice in lower primary schools. According to Morris (2002), the main reason for its disappearance was the change of political context after 1997.

One element in the post-1997 era was a curriculum launched by the Curriculum Development Council in 1999. The framework contained three major interrelated components, i.e. key learning areas (KLAs), generic skills, and values and attitudes. The KLAs were mainly inter-disciplinary structures which had been developed from the existing school subjects. To help students to learn more efficiently, generic skills such as collaboration, communication, creativity, critical thinking, and problem-solving were to be infused into the KLAs. The framework placed a high premium on student-centred approaches and school-based curriculum development for meeting diverse learning needs.

In Macao, by contrast, comprehensive curriculum development only started in earnest in 1989. In order to meet the public demand for compulsory education and a unified education system, the Macao government decided to develop a centralised curriculum with standardised quality. In 1994, the Curriculum Development Committee produced a framework which indicated the standards to be achieved and the subject areas to be learned in pre-primary, primary and junior secondary schools. Within this framework, a new subject called Civic & Moral Education was developed to help students adapt to the forthcoming change of sovereignty. The aims of this subject area, as noted by Tse's chapter in this book, included to foster students' positive attitudes towards their country and the Macao community, and to develop traditional Chinese moral concepts and values.

In the course of preparing the curriculum framework, the Macao government attempted to make Portuguese compulsory in all schools. This proposal was contained in the draft version of the curriculum framework submitted for approval by the Educational Council in 1994. Private schools which did not teach Portuguese as a core subject, it indicated, would not receive grants from the government (Yue 1994). This action roused the anger of the two major private umbrella educational bodies which, though divergent in their educational ideologies, worked together to oppose the move. They argued that the government could encourage private schools to teach Portuguese, but that it should not impose the language. The disputes were exacerbated by articles in the local Portuguese-language newspapers which supported the government policy, and by articles in the local Chinese-language newspapers which supported the private schools (Jeong 1994). Eventually the government backed down. The final version of the curriculum framework did not insist that Portuguese be a compulsory subject, though schools were given the option to teach Portuguese as a second language (Macao, Direcção dos Serviços de Educação e Juventude 1994a).

By 1998, provisional teaching syllabuses for the subject areas listed in the curriculum framework had been produced by the Curriculum Reform Working Groups. These syllabuses were then trialled in the official schools, and consultation with teachers

on the syllabuses was also arranged (Macao, Department of Education & Youth 2000). Additionally, scholars from mainland China, Hong Kong and Macao were commissioned by the government to evaluate the syllabuses. The evaluation indicated that, unlike the existing curriculum being taught in schools, the new curriculum had been contextualised with reference to the social phenomena of Macao. However, the primary curriculum and secondary curriculum were not well coordinated, the standards set in the curriculum were too high, and too many subjects were included (Macao, Department of Education & Youth 2000).

Assessment Modes

Tests and examinations have long dominated student learning in both Hong Kong and Macao, but the emphases in the two territories have differed. In Hong Kong, most internal and external examinations have been norm-referenced and competitive. In the past, before students could get a place in Secondary 1 they had to pass through the Secondary School Places Allocation system which scaled their marks in the internal school assessments together with those of an Academic Aptitude Test administered by the Education Department. The Academic Aptitude Test was abolished in 2003, and Basic Competency Assessments designed to take its place. These assessments focused on competence in Chinese, English and mathematics at Primary 3, Primary 6 and Secondary 3 levels. The initiative also promoted self-evaluation by primary students to assess their own learning.

Major reforms have also been signalled in the senior secondary examination system, but meanwhile the system has been dominated by the Hong Kong Certificate of Education Examination (HKCEE) taken at the end of Secondary 5 and the Hong Kong Advanced Level Examination (HKALE) taken two years later. Both examinations are organised by the Hong Kong Examinations & Assessment Authority (HKEAA), which was set up in 1977 and until 2002 was called the Hong Kong Examinations Authority (HKEA).

The TOC brought into the education system an alternative assessment mode, and attempted to shift the whole system away from the traditional assessment approaches with norm-referenced and summative orientations. The term Target Oriented Assessment (TOA) was used to describe the assessment part of the TOC. It emphasised the use of explicit criteria and formative assessment to help students to improve their learning. Thus, teachers were required to use a range of well-planned assessment activities with clear procedures for recording and reporting student learning. These assessment activities included practical tasks, projects, portfolios of student work, observation of students' performance, and oral interviews or interactions. The assessment part of the TOC met particularly severe problems during the implementation process (Morris et al. 1999; Morris 2002), but it built up the groundwork for curriculum reform in 2001 which promoted formative assessment for improving student learning and underlined the importance of integrating teaching, learning and assessment (Curriculum Development Council 2002a).

Macao, by contrast, had no territory-wide public examinations until 1990, and depended on external provision for school leaving examinations. In 1990, the University of East Asia (later called the University of Macau) launched an entrance examination open to all students in the territory. However, this was a university-entrance examination rather than a school-leaving examination, and a decade later Macao still had no examinations and assessment authority comparable to the HKEAA. Students in the

Portuguese-medium schools sat Portuguese examinations in the local examination centre and took the examinations simultaneously with their counterparts in Portugal. Many students in the other schools took examinations organised by other overseas examination boards. As the private schools under the supervision of the Macau Chinese Education Association had close connections with the PRC, their students normally took the entrance examinations organised in the local examination centres for the universities in mainland China. Most students of the Catholic or Protestant schools took either the General Certificate of Education (London) examinations or entrance examinations for Taiwan universities. Some students travelled to Hong Kong and sat the examinations there; and some students took no public examinations at all. The latter was not necessarily problematic, for Macao is a small community. Employers could easily get references for candidates who applied for jobs, and did not have to depend on the results of public examinations for selection purposes.

The entrance examination organised by the University of Macau has had an increasing influence on the schools. Bray et al. (2002) observed a growing number of secondary school graduates going into the University of Macau and other local institutions rather than to overseas institutions. In 1991, the authorities had expressed intention to establish a local assessment system like the one in Hong Kong (Macao, Governo de 1991), but this intention was not implemented. In 2003 the HKEAA went through a strategic review (IBM Business Consulting Services 2003), following which it was empowered to market its services outside Hong Kong and explicitly targeted Macao as one place to do this. This initiative may change the balance of forms of assessment in Macao, and may promote convergence of practices with those in Hong Kong. However, a 2003 seminar explicitly encouraged Macao schools to use a variety of assessment methods to substitute a single use of tests and examinations (*Macao Daily News*, 8 July 2003).

Textbooks

Especially during the 1950s and 1960s, the Hong Kong colonial authorities endeavoured to make school curricula politically neutral (Morris & Sweeting 1991). In particular, political issues related to contemporary China were excluded from the syllabuses. The aim was to avoid the intrusion of influences by the Nationalist Party in Taiwan and the Communists in mainland China, so as to maintain social stability. To assist the tasks of de-politicising the school curriculum, a Textbook Coordinating Committee was set up to scrutinise the textbooks provided by commercial publishers. A list of approved textbooks was then sent to individual schools for reference. With regard to those perceived as not educationally and politically acceptable, the decisions and suggestions made by the Committee were conveyed directly to the publishers (Morris & Sweeting 1991, p.263). In order to avoid financial losses, the publishers usually made changes. In contrast, the Macao government did not have to adopt the same measure to promote apoliticisation. This was partly because many textbooks used by Macao schools came from Hong Kong and were already apolitical.

With the impending change of sovereignty and the need to help students to increase their political awareness and become PRC citizens, the Hong Kong government introduced new subjects including Government & Public Affairs, Liberal Studies, and Civic Education. Government & Public Affairs stressed the study of concepts related to Western democracy and political issues of China. Liberal Studies provided contextualised and politicised studies of China and Hong Kong. In Civic Education,

substantial emphasis was put on developing students' identification with Chinese culture and good citizenship. The government also added topics to the existing subjects, including History, Chinese History, Economic & Public Affairs, and Social Studies. For example, in Social Studies, the development and structure of the Chinese Communist Party and the biography of Mao Zedong were covered. Most of these curriculum contents were once regarded as contrary to paragraph 78 of the Education Regulations (Hong Kong, Education Department 1971) and could have resulted in the closure of the school, dismissal of the teacher or withdrawal of government financial support (Morris & Sweeting 1991).

In order not to confront the Chinese authorities, the publishers also practised self-censorship. Terms used in the textbooks were changed, e.g. 'Hong Kong' became 'Hong Kong Special Administrative Region', 'mainland China' became 'Inland China', and 'Taiwan' became 'Taiwan Province'. Also, special teaching materials introducing mainland China were produced. For example, 'Knowing Your Own Country', developed by the Hong Kong Educationists' Association and the Hong Kong Resource Centre (1996), focused on the political, social, economic and military aspects of the PRC. 'Enhancing Learning, Knowing China', produced by the Education Department in 1999, included teaching resources such as teaching packages, CD-ROMs and computer software related to Chinese culture and history as well as the political and geographical features of mainland China. School-based teaching materials like 'HKSAR under the principles of one country, two systems' in an Integrated Humanities seed project were supported by the CDI (Curriculum Development Council 2002b).

At the school level, classroom teaching is no longer confined to the use of textbooks produced by the publishers. In order to foster students' abilities to be lifelong learners, teachers are encouraged to adapt textbooks and other learning materials to suit the students' learning needs. With the establishment of curriculum leadership positions in schools, particularly the primary schools, teachers started to work collaboratively to produce school-based teaching and learning materials which emphasised integration between different subject areas, infused generic skills such as critical thinking and creativity into the existing subject content, and used project learning. Additionally, some of these school-based learning materials stressed the importance of students' understanding in relation to the cultural aspects of the mainland China.

Macao has suffered a shortage of locally-produced teaching materials, and schools have to depend on imported textbooks. The main source of these textbooks has been Hong Kong (especially in the religious private schools), but other books have been imported from Portugal (especially in the Portuguese schools), and the PRC (especially in the schools of the Macau Chinese Education Association). Until the 1990s, the main reasons why hardly any textbooks had been specifically produced for Macao schools were that the Macao government had neglected the majority of schools, and the market in Macao was so small and fragmented that commercial publishers had been unwilling to invest in it (Bray & Tang 1994a). The result was that some students knew more about certain features of Hong Kong than parallel features of Macao, and were influenced by the thoughts and ideology prevalent in Hong Kong. From this perspective it was argued that Macao was perhaps a de facto colony of Hong Kong rather than Portugal in aspects of its culture.

However, one textbook in Social Studies (namely *Social Studies of Macao*, published by the Modern Educational Research Society) and another in Chinese Language (published by Yen Chin Publications) were produced specifically for use in

Macao primary schools in 1990 and 1991 respectively. These textbooks were written with close reference to the syllabuses produced by the Hong Kong Curriculum Development Council. Also, some teachers have prepared quasi-textbooks by compiling their own teaching materials for use in schools, and the early 1990s brought initiatives for books in other subjects (Kong 1992; Bray & Tang 1994a, 1994b). In the early 1990s, the Macao government produced textbooks on Civics and Health Science. In 1993, the government also promised to build up conditions for the production of textbooks and other educational equipment and resources. According to Fong (2000b), the Macao government had started to coordinate some textbook editing work with a number of publishers. It was anticipated that such collaboration would result in a production of more relevant local textbooks for use in schools in the future.

Conclusions

In both Hong Kong and Macao, the change from colony to Special Administrative Region brought major changes in curriculum. However, the changes in the two territories did not always operate in parallel. With respect to curriculum process, Hong Kong had a highly centralised education system which then moved towards some decentralisation. Macao, by contrast, had an uncoordinated set of education systems and moved towards centralised curriculum decision-making in order to improve coherence. Concerning the curriculum products, during the 1990s the Macao and Hong Kong governments reviewed their school curricula and prepared their frameworks for reforms. Moreover, both governments encouraged addition of Chinese political and cultural concepts through new subjects and new topics in existing subjects.

Hong Kong and Macao followed different approaches to curriculum reform. At the government level, Hong Kong mostly adopted the stimulus-response model before 1997 and the rational model subsequently. The Macao government mostly employed the rational model, and stimulus response in the face of ad hoc events. In the main colonial period, the principal goal of the Hong Kong government was to preserve its authority and power. When faced by challenges, the authorities took action to maintain their status. The use of the stimulus-response model fitted the decentralised strategy during the 1980s when the government faced increasing demands for democracy and dissatisfaction with the centralised curriculum. One typical example was TTRA, which encountered strong resistance from teachers and schools. In order to solve this problem, the Hong Kong government set up an advisory committee which recommended the implementation of the curriculum innovation with a change of the name from TTRA to TOC, a simplification of the relevant documents, and increased provision of resources. The use of the rational model was evident in the setting up of the Education Commission in 1984, the establishment of the Curriculum Development Institute in 1992, the re-organisation of the Education Department as part of the EMB in 2003, and the strategic review of HKEAA in 2003.

The Macao government faced pressures which were in some respects similar but in other respects different. The government continued to administer the official schools, but gave more support than before to the private schools. However, the private schools were not all willing to sacrifice their autonomy when invited to fit government plans. To achieve effective educational reform, the Macao government persisted with a centralised approach and a rational model to improve coordination among schools. This was rather

different from Hong Kong, where the government used dual models in organising different curriculum reform activities. A number of stages were evident in the Macao process, including decision on the need for educational reform; organising public conferences/seminars on the direction of the reform; passing educational laws and setting up working committees; planning school curricula, experimenting with syllabuses, collecting feedback from teachers; and evaluating the reform. Nevertheless, the government also employed a stimulus-response model to cope with issues arising in policy making. This can be discerned in the dispute related to the inclusion of Portuguese as a compulsory subject. In face of fierce opposition, the government changed its mind and made Portuguese one of the options for second language teaching.

At the school level, changes on a stimulus-response model were evident in both territories. Out of their own professionalism, together with their response to the urgent need to help pupils to develop identity with the PRC and Chinese culture, teachers in both Hong Kong and Macao produced teaching materials and organised extra-curricular activities in their schools.

Returning to the observation at the beginning of the chapter about the similarities and differences between Hong Kong and Macao in terms of their curriculum development, and those between the two territories as a pair and other parts of the world which have experienced curriculum reform, four major points may be highlighted.

- *Personnel for curriculum development.* Hong Kong and Macao have very different situations in personnel. Whereas Hong Kong is relatively well-endowed, Macao is short of curriculum development specialists. Curriculum development in Macao was initially taken up by the Education Reform Committee which was headed by a government official, and then by an ad hoc curriculum development committee of teachers and university lecturers who were not experienced in curriculum development. This situation resembled some small states such as Montserrat where the curriculum development unit had only one post and Grenada which had five (Bray 1992c, p.67). However, Hong Kong's Curriculum Development Institute is a well-organised body with subject specialists who have strong experience. This has been made possible by Hong Kong's larger population and longer record of tertiary education and high-level training.
- *School-based curriculum development.* Like their counterparts elsewhere (Lewy 1991; Wu 2002), many teachers in both Hong Kong and Macao recognise the need of school based curriculum development, and supplement non-local textbooks with materials related to local issues. Hong Kong teachers select or adapt the teaching materials from the centralised curriculum so as to meet the learning levels of their students. In Macao, because there is a lack of localised teaching materials, some teachers have taken initiatives to develop their own materials.
- *Assessment.* Hong Kong had already established its local examination system operated by the Hong Kong Examinations Authority during the colonial era. In Macao, the first local public examination organised by the University of East Asia appeared in 1990. This was consistent with patterns elsewhere in Asia and in Africa, the Caribbean and the South Pacific, where governments established national or regional examination boards during the period of colonial transition (Kellaghan & Greaney 1992; Bray 1998b). After the

transfer of sovereignty, both governments attempted to promote alternative assessment modes.

- *Textbooks.* Teachers in both Hong Kong and Macao depend heavily on textbooks. Hong Kong has various types of publishers including locally-organised overseas publishers (e.g. Oxford University Press, Longman) to produce local textbooks which are based on EMB requirements. Moreover Hong Kong has subject specialists who help in writing the textbooks. In contrast, Macao textbooks have been mainly imported from such places as Hong Kong, the PRC and Portugal. Recent attempts have been made to produce local textbooks. The situation is similar to Solomon Islands, which heavily depended on imported textbooks in the past but started to produce local textbooks for schools in the early 1990s (Bray 1992c, pp.77-79).

Important insights may also be gained for an understanding of the impact of political change on curriculum development in Hong Kong and Macao. Some of these insights can be generalised to other societies at different periods of time. The first important insight is related to the nature of curriculum. Although the two territories are similar in their cultural and political backgrounds, the characteristics of their school curricula are very different. This is due to the fact that different strategies were adopted by the two colonial governments in curriculum development. However, because of the political change with the common goal of reunification with the PRC, school curricula in these two territories have begun to show signs of convergence.

As a pair, Hong Kong and Macao may be contrasted with other colonies which have undergone political transition. As discussed above, both Hong Kong and Macao governments placed a premium on curriculum development after the handover of their sovereignty had been agreed in the 1980s. This approach had similarities with patterns elsewhere, but also had differences. Since most other former colonies became independent states after their political change, the major purpose of their curriculum development was to build up new national identities. This was not the case in Hong Kong and Macao. Certainly the authorities wanted their students to identify with the territories in which they lived; but they also wanted them to identify with the PRC. Assessment policies also differed from those in the majority of colonies which became independent. Many of these colonies took the examinations run by their colonial powers, because it was seen as a means to obtain internationally recognised credentials. Singapore and Sri Lanka are examples of this pattern (Kariyewasam 1996; Lim & Tan 2000). In Macao, the departing colonial authority declared intent to establish a local unified assessment system but did not accomplish the objective; and in Hong Kong, the departing colonial regime introduced formative assessment through the TOC but it was unsuccessful. However, both territories encouraged schools to use diversified assessment methods in their curriculum reforms for the new century. This trend is similar to the recent assessment reform in mainland China – the motherland of these two territories – in which there is an intention to change the examination oriented education system into the one with quality standards in assessment which involves both parents and students in the process.

Change of sovereignty certainly did not end curriculum reform in either Hong Kong or Macao. Further changes in the processes and products of curriculum development were evident in both territories in their promotion of quality education for students in the new century. Moreover, these changes were as radical as those in the

period prior to the change of sovereignty. Thus Hong Kong and Macao will certainly continue to be fertile grounds for instructive comparison of curriculum development.