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Teacher Education

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This chapter examines the history and development of primary and secondary teacher education in Hong Kong and Macao. In Hong Kong, formal in-service and pre-service teacher education was initiated in the 19th century, but in Macao its history dates only from the 1930s. The Macao government has worked hard to catch up with Hong Kong; but the Hong Kong authorities feel that much needs to be done to catch up with other advanced societies.

The chapter begins with broad literature, so that Hong Kong and Macao may be taken as a pair for comparison and contrast with other parts of the world as well as with each other. It notes that various debates have taken place over the structure of teacher education, and on its most appropriate locus. A global trend gives universities rather than specialised training colleges increasing responsibility for the training of teachers; but in some countries training is being devolved to schools in which trainee teachers work closely with experienced mentors in the classroom.

Several parts of the chapter refer to institutions for training teachers as ‘normal’ schools. While this terminology has ceased to be common in both Hong Kong and Macao, it is still part of standard vocabulary in mainland China. The word also remains common in some other parts of the world, particularly French-speaking ones. The term normal education originates from French term *écoles normales* (Collins et al. 1973, p.146).

The Nature and Functions of Teacher Education: International Perspectives

In almost all parts of the world, teacher training has been a neglected activity until relatively recent times. As noted by Dove (1986, p.177) identified several reasons why teacher training has tended to have a low priority. One reason was that teacher training was (and is) only part of larger systems, responsive and reactive to developments in the schools. Another reason is that until recently, the need for training has not been put forward convincingly. Particularly at the elementary level, where the earliest expansion of school systems began, the notion was widespread that any person who had completed a particular level of education could teach students at lower levels. A further factor concerns budgets. Not only does training itself require finance, but trained teachers generally demand higher salaries than untrained ones.

Because of these factors, almost all countries, whatever their level of development, have at some point in history permitted untrained personnel to take teaching positions. Indeed in some countries it remains the norm rather than the exception. UNESCO (1998, p.45) reported that in the mid-1990s in Uruguay, for example, 70 per cent of teachers in secondary schools had not been trained; and in Togo the corresponding figure for lower secondary education was 84 per cent. Even in the USA, which is a prosperous society with high standards, over 12 per cent of new recruits entered the classroom without any formal training, and another 14 per cent arrived without fully meeting state norms. UNESCO pointed out that although on a global basis teachers are better educated than 30 years ago, so are general populations who are not teachers. UNESCO added (p.46) that:

The fact that society still is willing to accept at all that people can be employed as teachers without having received any specific preparation for the job points to the difficulty for teachers in getting their claims heard. Probably no other aspect of teacher employment policies has done as much to retard progress towards recognition of teaching as a profession.

This observation would apply to Hong Kong and Macao as well as to other parts of the world.

International survey also shows diversity in the emphases between pre-service and in-service training (Gimmestad & Hall 1995; Villegas-Reimers 2003). While some education authorities insist that teachers must have received training before they can be offered jobs, others are prepared to employ untrained teachers and then encourage or require them to undertake in-service training. Pre-service training is commonly provided either in colleges of education or in universities. Where universities are involved, training may be part of an undergraduate degree or it may be a special postgraduate course. In-service courses may vary in duration from days to years. Refresher courses are typically shorter than ones which seek more fundamental training in techniques and approaches. Again, this diversity in the forms of training has been evident in Hong Kong and Macao as much as in other parts of the world.

UNESCO (1998, p.67) reports a “long-term secular trend worldwide ... towards the consolidation of pre-service teacher-education programmes at the tertiary level of education”. This partly reflects the shifting balance of teacher education as secondary school systems, and therefore the demand for secondary teachers, have grown proportionately to primary school systems and therefore the demand for primary teachers. Hong Kong and Macao have followed the trend towards consolidating teacher education in tertiary institutions. Hong Kong used to have a dual system in which some teacher training was conducted by universities while other training was conducted by colleges of education operated by the government’s Education Department. The colleges of education were later merged into the Hong Kong Institute of Education (HKIEd) funded by the University Grants Committee. Likewise in Macao, the expanded work of the University of Macau has greatly shifted the balance between training provided by the tertiary and the non-tertiary sectors. However, in neither Hong Kong nor Macao has an existing college of education been absorbed into a university. Thus the HKIEd was created as a free-standing body, similar in nature to normal universities in mainland China. This contrasted with the model in Australia and the United Kingdom in which many colleges of education were merged with existing multi-faceted universities.

However, the free-standing status of the HKIEd has been challenged, and powerful forces have advocated merging it with one of the universities in order to strengthen the sector and perhaps use resources more efficiently.

As one might expect, the nature of teacher education in colonies around the world was in general heavily influenced by patterns in the colonising country (Dove 1986, p.181). This observation applies to Hong Kong and Macao as well as to other colonies, though in Macao the government's *laissez faire* approach until the late 1980s meant that government-sponsored forms of teacher education were neglected along with other aspects of education and training. Historically, in many parts of the world churches and other voluntary agencies have been involved in teacher education. This still continues in some settings, but has declined in prominence as governments have generally become more involved in education.

International survey also reveals controversy over the contents of teacher education. Courses typically seek to balance subject knowledge, teaching skills, and general conceptual understanding. This means that biology teachers, for example, must know enough biology to be able to teach their subjects well; but that they must also be equipped with an array of tools for teaching their subjects to different types of pupils and in a range of different circumstances, and they must have general understanding of psychology, sociology, the structure of education systems, and various other domains which will affect their lives and work. One difficulty, however, is a lack of consensus on where the appropriate balance between these different elements should lie. Professionals also differ in their conceptions of the roles of the practicum, appropriate relationships with school-based mentors, and many other issues (F.K.S. Leung 2003).

Finally, one specific factor which affects the nature of teacher education, as well as of education systems more generally, is the scale of the operation. Systems which are fairly large can afford much more specialised training than can systems which are smaller. This is evident in mainland China, for example, which has many normal universities entirely devoted to the task of teacher education. Hong Kong also has a fairly large education system, and is therefore able to provide considerable specialised training by subject, level, and special need (such as mentally handicapped children, or gifted children). As shown in other chapters of this book, Macao's education sector has been not only small but also fragmented. Macao's Portuguese-medium sector, for example, has rather different cultures, traditions and needs from the Chinese-medium sector. Small size and fragmentation has in the past obstructed development of teacher education in Macao; and it remains the case that some forms of specialised training are better sought outside the territory than in Macao itself.

Historical Perspectives

To explain the origins of contemporary patterns, this section charts the growth and development of teacher education in the two territories. It begins with Hong Kong, and primarily focuses on the period up to the late 1980s.

Hong Kong

The Hong Kong government declined to play anything more than a minimal role in teacher education until the 20th century. St Paul's College, an Anglican school founded in 1849, introduced teacher education to Hong Kong in 1853 by setting up a

pupil-teacher scheme which prepared teachers of English. Frederick Stewart, who held a dual appointment as the first headmaster of the government's Central School (later renamed Queen's College) and the first Inspector of Government Schools, launched another pupil-teacher scheme in the mid-1860s in the Central School. This scheme was similar to the monitorial teacher education system in England (Sweeting 1992, p.60). Also, in 1881 the authorities set up the Wanchai Normal School to train Chinese teachers to teach English. However, the school was short-lived. It only admitted 10 student-teachers, and only two managed to graduate before its closure in 1883 (Yau et al. 1993, p.75).

The next government initiative was in 1906 when an Evening Continuation Class for pupil teachers was introduced in Queen's College. The following year the class was transferred to the Technical Institute. Then, a decade later, a four-year undergraduate course was launched at the University of Hong Kong (HKU) by the newly established Department for the Training of Teachers (Sweeting 1998a, p.4). The course aimed to prepare teachers for both primary and secondary sectors.

Vernacular (Chinese) teacher training started in 1914 at the Technical Institute. In 1920, the government opened two Vernacular Normal Schools: one for men and the other for women (Yau et al. 1993, p.76). A third institution, the Government Tai Po Vernacular Normal School, was founded in 1925 to supply teachers for rural schools. In 1926, the Government Vernacular Middle School was founded. It absorbed the Government Vernacular Normal School for Men under its Normal Division.

In 1938, Governor G.A.S. Northcote appointed Mr Justice Lindsell to form a special committee to study teacher education. The following year, as a result of his report, the first Teacher Training College was opened to replace the existing normal schools in temporary premises. It provided teacher training for both Anglo-Chinese and vernacular schools in a two-year full-time course. Thirty-seven of the 48 student teachers graduated in 1941, and in the same year the college was moved to its own premises. However, its activities were interrupted by World War II. At first named the Northcote Training College, in 1967 it was renamed Northcote College of Education (Sweeting 1990; H.T. Wong 1993).

The post-war period brought continued expansion. To serve the New Territories, a Rural Training College was established in 1946; and five years later the Grantham Training College was established in Kowloon to prepare Chinese primary school teachers. The Grantham Training College absorbed the Rural Training College in 1954, and was renamed Grantham College of Education in 1967. The college trained primary and secondary teachers from the outset, and kindergarten teachers after 1981.

Another teacher education institution of this type was set up in 1960 to support the expanding primary school sector. It was initially called the Sir Robert Black Training College, but was renamed the Sir Robert Black College of Education in 1967. In 1981, the college set up a special unit for in-service training of special education teachers. The basic course structure for pre-service primary and secondary teacher education was a two-year full-time Certificate of Education course for Secondary Form 5 or 7 graduates.

To strengthen the expertise for industrial development, the Hong Kong Technical Teachers' College was formed in 1974. The college trained teachers of practical subjects for secondary and prevocational schools. Technical Diploma graduates from Technical Institutes or Polytechnics with industrial working experience were allowed to take a one-year full-time Technical Teacher Certificate course, while Secondary Form 5

graduates had to study for two years. Following the other three colleges of education, the two-year Technical Teachers' course was extended to three years in the 1980s.

Hoping to advance the language ability of teachers, the fifth government teacher education institution was opened in 1982. The Institute of Language in Education was established to provide in-service Chinese and English language courses for primary and secondary teachers. Language teachers were released by schools to attend three-month or six-month courses in the institute.

In addition, much teacher education was provided by local universities. The long history of teacher education at HKU has already been mentioned (Sweeting 1998a, 1998b). In 1965, the Chinese University of Hong Kong (CUHK) also established a School of Education. The university courses mainly provided training for secondary teachers, on a pre-service and in-service basis.

Macao

The history of teacher education in Macao is shorter and more modest than that in Hong Kong, but as in Hong Kong in the initial decades it was mainly provided by churches. The first formal arrangements for teacher education were initiated in the 1930s by a number of bodies. Courses were taught in Chinese, and provision was rather limited and unstructured. Twelve independent institutions provided classes to prepare teachers for Macao Chinese schools between 1935 and 1985 on either an in-service or pre-service basis (S.P. Lau 1997, 2002a). For example, Hou Kong Middle School launched a one-year normal class for junior secondary school graduates in 1952; and St. Joseph's College introduced a normal class in 1953. In the same year, Tak Meng School started kindergarten teacher education for female Senior Secondary 3 graduates; and Zhongshan Normal School and the Anglican Church Teachers' College within Choi Kou Middle School also offered normal classes (Fu et al. 1994; Lai 1995; Feng & Lai 1999).

Few of these programmes were sustained, and the only course still running in the 1980s was that provided by St. Joseph's College (K.I. Chan 1991). Even St. Joseph's changed the structure of training and suspended classes several times. However, it continued with in-service and pre-service courses for kindergarten and primary teachers even when other institutions launched programmes in the 1990s. The private sector gained few resources from the government because until the 1970s the authorities were mainly concerned with education for Portuguese-speaking children (Rosa 1991). Moreover, before the 1966 riots most schools were registered with the Taiwan government. In 1954, for instance, 51 of the 70 schools in Macao were registered in Taiwan (C.F. Cheung 1956). This further distanced the schools from the Macao government. After the 1966 riots, many schools turned to mainland China for assistance (Macau Chinese Education Association [MCEA] 1967, 1968).

Teacher education for secondary schools was even more limited than that for primary schools. The chief reason was that the whole sector was very small. In 1934, Macao had only eight Chinese secondary schools with 350 students, serving a total population of just 120,000 (S.P. Lau 1996). Rather than establishing local institutions for training, sponsoring bodies found it easier to recruit teachers from abroad who had already been trained. Supply of teachers was also increased by immigration. During and after World War II, many highly educated Chinese scholars migrated to Macao and took up teaching posts (S.P. Lau 1996; K.K. Tang 1997). Also, many schools were run by religious bodies in which priests and nuns were available to teach. Finally, teachers were in effect trained on the job. A common practice was to promote teachers of senior

primary to junior secondary classes and then to the senior classes after they had received a few years of experience.

Government-provided teacher education in Macao began in the mid-1960s, when the authorities set up a Division of Initial Teacher Education for Portuguese-medium primary schools in the official Pedro Nolasco da Silva Primary School (later converted to the Luso-Chinese Central Primary School, and then to the Gomes Luso-Chinese Secondary School). In 1973, the two-year full-time primary teacher education course was abandoned because student-teachers preferred to take scholarships for study in Portugal. After a long break, teacher education for Portuguese-medium primary schools was resumed in 1995 at the University of Macau. However, the Portuguese teacher education course was again abandoned at the start of 21st century because of lack of students.

During the 1980s, under pressure from the MCEA and other bodies, the government abandoned its *laissez-faire* policy in teacher education for Chinese schools. A partnership was arranged with South China Normal University (SCNU) in Guangzhou. In 1985, the SCNU's College of Adult Education launched an external part-time in-service course leading to a diploma in teacher education. The three-year course was conducted by correspondence and without teaching practicum, and was administered by the MCEA (Chiu & Ng 1991; C.L. Wong 1995). Among the 141 enrolled in-service primary and secondary teachers, 120 received full financial support from the Macao government. The government also paid for a two-year in-service special course for primary and kindergarten teachers at the private University of East Asia (UEA). This course was launched in 1987 (Wang 1996).

Developments in the 1990s: Pre-Service Teacher Education

The 1990s brought substantial change and maturation in teacher education in both Hong Kong and Macao. This section comments on pre-service provision while the following one comments on in-service provision.

Hong Kong

Among the most significant developments in Hong Kong teacher education during the 1990s was the establishment of the Hong Kong Institute of Education (HKIEd). It was formed in 1994 by amalgamating the five existing colleges of education (C.K. Leung 1995). The chief goal, following recommendations in Education Commission Report No.5 (1992), was to upgrade the quality of teacher education. The HKIEd moved into a new campus in Taipo in 1997. Two types of pre-service primary teacher education were run by the HKIEd. One was for Form 7 students, who could be admitted to the Certificate in Primary Education (Chinese) course which lasted two years full-time. Form 5 school leavers could enrol in the Certificate in Primary Education (Chinese) course which lasted three years full-time. The students were trained to teach four primary subjects.

Education Commission Report No.5 (1992, pp.45-46), which was subsequently endorsed by the government, had set a target of achieving graduate status for 35 per cent of primary teachers in 2007. Initially, the HKIEd focused on non-graduate teacher education; but graduate teacher education for primary teachers was provided by the CUHK, HKU and the Hong Kong Baptist University (HKBU). Many primary school

teachers also obtained degrees from overseas universities, either through full-time study in those universities or through a combination of residential and distance education. Most of these courses provided part-time or full-time courses for graduates from the colleges of education or the HKIEd. For instance, holders of the HKIEd Certificate of Primary Education could transfer directly to two-year full-time courses at the CUHK and HKU in order to become graduate primary teachers.

The HKIEd also provided pre-service courses for junior secondary teachers and technical teachers. The format of courses and the types of student-teachers selected for the junior secondary tracks were similar to those in primary teacher education. Secondary 7 graduates were eligible to join the two-year full-time Chinese or English Certificate in Secondary Education courses, while Secondary 5 graduates with reasonable results in the Hong Kong Certificate of Education Examination (HKCEE) could join the three-year Chinese or English courses. However, the three-year English Course was terminated in 1998. The one-year full-time Technical Teacher Certificate Course was for post-secondary graduates with technical Diplomas or above as well as a minimum of two years relevant post-qualification industrial experience. These fresh technical student-teachers were prepared to teach one technical subject and mathematics or technical drawing at junior secondary level in prevocational schools.

HKU and CUHK also helped build up the team of specialist secondary teachers. HKU offered a four-year BEd in Language Education (Chinese/English); and HKIEd fresh graduates could join the BEd two-year course in Physical Education & Sports Science at the CUHK. In addition, both HKU and CUHK offered one-year full-time Postgraduate Certificate of Education or equivalent courses. The courses were designed for fresh graduates, though also attracted applicants who wished to move to teaching after having worked for some years in other sectors. Other courses in tertiary institutions (Sweeting 1998a, p.32) included the Postgraduate Diploma, Bachelor of Arts and Master of Arts in the Teaching of English as a Second Language (TESL) at the City University of Hong Kong, and the Postgraduate Diploma and Master of Education operated by Hong Kong Baptist University.

Macao

Realising the urgent need for high quality teachers for rapid educational reform, in 1989 the Macao governor appointed a committee to plan innovations in education. A School of Education was created in the UEA later that year to provide courses in early childhood and primary teacher education. In 1989, 34 pre-service primary student teachers enrolled in the diploma course. The following year, a special one-year advanced diploma in-service teacher education course was initiated for practising teachers who were graduates from St. Joseph's College and similar institutions. From 1992 to 1996, the School of Education offered a three-year Bachelor of Education (BEd) course for advanced diploma and pre-service diploma graduates. Thus, at this stage three different bodies were offering courses for Macao primary school teachers in the Chinese stream: St. Joseph's College, the South China Normal University, and the UEA (F.K. Ng 1992; K.C. Cheung 1996; S.P. Lau 1997).

As before, however, teacher education for secondary teachers received less emphasis. The Macao government did not provide any local training for teachers in Portuguese-medium secondary schools, preferring instead to send personnel abroad for training and to recruit expatriates. For teachers in Chinese-medium secondary schools, a full-time pre-service course was introduced in 1991 at what had previously been the

privately-operated UEA but which in 1988 had been purchased by the government and in 1991 had been renamed the University of Macau (UM). BEd degrees were organised in arts/Chinese, arts/English and science/mathematics. The intention of the university was to prepare teachers for local Chinese-medium and English-medium secondary schools.

In 1995, the UM Faculty of Education launched a three-year pre-service Bacharelato degree of Educational Science (Primary) course, to replace the diploma course. In the Portuguese system, the Bacharelato degree normally takes three years of study while the Bachelor (Licenciatura) degree normally takes four years. Whereas Hong Kong students were expected to have knowledge of English as well as Chinese, UM students were expected to have knowledge of Portuguese as well as Chinese.

Developments in the 1990s: In-Service Teacher Education

In both Hong Kong and Macao, in-service courses were available to give initial training to practising teachers and to upgrade the knowledge and skills of teachers who were already qualified. These are explained and commented upon here.

Hong Kong

Two different types of in-service primary teacher education courses were offered by the HKIED to give initial training to practising teachers. The three-year part-time in-service course for teachers in primary schools was designed for teachers who had obtained reasonable HKCEE results; and the two-year part-time course was offered to untrained primary teachers with higher academic qualifications. A parallel set of in-service evening courses was offered for teachers in Chinese-medium and English-medium secondary schools.

In 1997, the HKIED Division of Extension Studies offered 22 professional development programmes. For secondary teachers, the HKIED offered several in-service courses to advance the professionalism of teachers. Some of the courses aimed to advance the Chinese and English language ability of secondary teachers. Others helped panel chairpersons of Chinese or English Language, and yet others focused on curriculum development and other subjects.

Teachers with Certificate of Education (Primary) qualifications had many channels to upgrade themselves to degree status both within Hong Kong and abroad. The CUHK and HKU offered BEd part-time degrees for primary teachers; and two consortia of local tertiary institutions offered similar courses. One consortium comprised the Open University of Hong Kong (OUHK), the Hong Kong Polytechnic University, the City University of Hong Kong and the HKIED. The second consortium comprised the School of Continuing Education of the HKBU, the HKIED and the School of Professional & Continuing Education of HKU. Australian and UK universities offered additional BEd courses through part-time distance learning, sometimes in conjunction with blocks of full-time study.

The HKIED also provided upgrading courses for non-graduate teachers of cultural, practical and technical subjects with the one-year full-time Advanced Course of Teacher Education. Practising teachers who were nominated by their Heads of Schools were considered to undertake specialised studies in one of the following subjects: Art &

Design, Commerce, Design & Technology, Home Economics (Dress & Design), Music and Physical Education, plus the compulsory professional and general studies.

Certificated secondary school teachers in the past normally either studied in the UK for one or two years to upgrade themselves to graduate status or took the six-year part-time evening bachelor degree of mathematics or science in the Hong Kong Polytechnic or the City Polytechnic. Later, many Australian and UK universities set up teaching points in Hong Kong so that non-graduate teachers could take their part-time distance learning courses in Hong Kong. Another resource was the OUHK, which launched a BEd (Secondary) degree in 1995 and an MEd in 1996.

Macao

Three institutions offered initial in-service primary teacher education courses in Macao. First, the UM provided a three-year in-service part-time Bacharelato degree in primary education for untrained teachers who had at least one year's teaching experience. The course content and structure was similar to that of the pre-service programme. Second, St. Joseph's College offered a mixed two-year evening part-time certificate in primary education for both non-trained in-service teachers and adults with no teaching experience. And third, the SCNU offered a part-time distance three-year diploma course and a five-year BEd course in education and Chinese language teaching for in-service teachers as well as Macao citizens with no teaching experience. All these courses were recognised by the Macao government.

The UM's three-year Portuguese Bacharelato degree of Educational Science (Primary) was a mixed course for untrained teachers and other Portuguese-speaking adults who wished to become teachers (University of Macau 1997a). The course content and structure of the Portuguese programme was similar to that of the Chinese programme.

Opportunity for holders of primary teachers' certificates to upgrade to BEd was more limited in Macao than in Hong Kong. The UM did have a three-year part-time BEd in primary education, but suspended it in 1995. Although the UM introduced an MEd course in 1996, and a number of BEd graduates were enrolled in two MEd courses in management and in psychology, analysts expected Macao to suffer a shortage of graduate primary teachers. As a result, some non-graduate primary teachers took the five-year part-time BEd course provided by the SCNU. This course did not give them credit for their existing post-secondary studies, and in this respect seemed to waste government resources and teachers' energy and time.

Compared to provision for primary teachers, in-service provision for secondary teachers in Macao was neglected. When the full-time BEd secondary teacher education programme was launched, the UM did allowed a small number of in-service initial student teachers to study under a part-time structure. However, the last group of this type graduated in 1996/97.

Nevertheless, since 1991 the UM has offered a two-year part-time Post-Graduate Certificate of Education (PGCE) for practising secondary teachers with Bachelors' degrees in any subject. Fifty six in-service secondary teachers had been awarded the PGCE by the end of 1997 (University of Macau 1997b). The SCNU also provided in-service opportunities for secondary teachers. A number of secondary teachers joined the three-year Education Professional course in 1985; and in 1989 the university extended a two-year Bachelor course for these graduates. In the 1990s, a five-year distance Bachelor degree of Chinese Language was introduced to upgrade the status of

language teachers. In addition, the Macao government established two special Bachelor Degree Courses in Physical Education and Arts & Design under the administration of the Macao Polytechnic Institute and the Institute of Arts.

The University of Macau, in conjunction with the government's Department of Education & Youth, also offered summer courses for practising teachers in all school levels to upgrade their professional knowledge. Several private organisations such as the Macau Chinese Education Association (MCEA) and the Macau Catholic Schools Association have also conducted short refreshment courses or seminars in educational issues.

The Future: Development and Innovation in the 21st century

In Hong Kong, major thrusts have focused on quality school education and excellence in education. Education Commission Report No.7 (1997) stressed that it was time to raise the professional standards of principals and teachers. In 1997, the Chief Executive, Tung Chee Hwa, announced that the government would enhance the professional status of primary teachers by advancing the date for 35 per cent of posts being graduate positions from 2007 to 2001, and would require all new primary and secondary teachers to be trained graduates (Tung 1997b). Thus, Hong Kong was following the steps of other advanced societies to raise the quality of teachers.

However, K.M. Cheng (1997a) asserted that these innovations came 20 years late. Furthermore, Pong (1997) asserted that the quality and quantity of teachers of physical education, music and arts trained by the HKIED could not meet the demand of the primary schools. One problem was that these subjects were treated as minor subjects, and thus given less time and attention. Secondly, many full-time primary student-teachers who learned arts subjects at secondary school were weak in science. Hence, the quality of primary science teachers was not up to standard. Further, the reform of subject curriculum to integrate Social Studies, Science and Health Education into General Studies made the situation even more complex.

Secondary teacher education was not seriously discussed by the Chief Executive or by Education Commission Report No.7. The most challenging tasks in secondary schools were to raise the language ability of both Chinese and English teachers, promote mother-tongue language teaching in secondary schools, and increase the use of information technology in teaching.

In 2000, Hong Kong's Education Commission launched a reform proposal entitled *Learning for Life, Learning through Life* (Education Commission 2000). In response, many in-service curriculum courses were organised by the tertiary institutions, and the government's Education & Manpower Bureau (EMB) worked with schools to provide on-the-job training and supervision. This was part of an expansion of in-service training for practising teachers in theory and skills to promote the education reform.

The language proficiency benchmark system was another new issue in Hong Kong. Language Proficiency Tests were launched for serving English Language teachers and Putonghua teachers, for all pre-service student-teachers, and practising teachers who did not want to take in-service courses (SCOLAR 2003). However, the initiative was not smooth, especially when a significant number of teachers failed the test.

At the same time, falling birth rates led to closure of kindergartens and primary schools and a crisis for the teaching profession. As the demand for fresh graduates decreased, the Hong Kong Institute of Education began to phase out its Certificate of Education course for secondary school leavers. In 2003/04, only students with good A Level results were admitted to the Bachelor of Primary Education/Secondary Education courses.

To ensure the progress of the education reform in Hong Kong, the Education Commission and the Education & Manpower Bureau organised various projects for teachers' professional development. One big issue was the licence system for principals. All aspiring principals were required to attend special courses, and practising principals had to engage in professional development through study, research or social service. These moves brought a great change in teacher education during the initial years of the 21st century. The focus shifted to in-service teacher education and lifelong teaching professional development to meet the needs of the rapid changes in the society (Education Commission 2003a).

In Macao, the authorities commenced with a lower starting point but during the 1990s achieved great strides in upgrading the teaching force. In 1995/96, 60 per cent of primary teachers had completed both secondary schooling and teacher education, while 20 per cent of secondary teachers had received training and 71 per cent of secondary teachers had received tertiary education (Macao, Direcção dos Serviços de Estatística e Censos 1997b). This situation may be compared with that in 1983/84, when only 24 per cent of teachers at all levels had teaching qualifications. In 1996, the Macao government issued the 'Regulation on Teachers for Private School Organisations' to raise the status and academic qualification of teachers. The Department of Education & Youth also prohibited schools which had joined the Free Education Scheme from employing new untrained teachers. As a result, by 2001/02 78 per cent of teachers in kindergartens, primary schools and secondary schools had teacher education certificates, and the majority were Bachelor Degree holders or above (Macao, Department of Education & Youth 2003).

Foreseeing a shortage of students for initial in-service primary teacher education, in 1999 the UM resumed the in-service evening Bachelor degree to upgrade the Bacharelato degree for kindergarten and primary teachers. Even though the UM did not plan to provide a pre-service BEd in kindergarten and primary education in immediate future, Bacharelato graduates could upgrade their qualifications through evening in-service courses or distance learning. Furthermore, the SCNU had built an annex in Zhuhai, across the border from Macao, in order to change the model from distance teaching to face-to-face teaching. This programme was expected to grow, and was an interesting way through which Macao could benefit from the rapidly-expanding city just beyond its gate. However, Macao suffered from a dispute about the standard of teacher education, particularly comparing the quality of graduates from SCNU, UM and St. Joseph's College. This matter needed resolution for harmonious future development.

In addition, more local institutions in Macao began to offering teacher education courses in the initial years of the 21st century. The Macao Polytechnic Institute offered Bacharelato degrees in Music, Arts & Design, and Sports & Physical Education. Bacharelato degree holders in the second two categories could advance to Bachelor degrees through advanced courses lasting one and a half years. The Inter-University Institute of Macau, a private higher institution run in conjunction with the Catholic diocese and the Catholic University of Portugal, offered a number of teacher education

courses ranging from one-month certificates for Form Five secondary school leavers to PhD programmes. These courses used English as the medium of instruction.

Conclusions

This chapter has highlighted several similarities in teacher education in Hong Kong and Macao. Beginning with historical features, in both territories teacher education was mainly developed by the private sector before the governments started to offer formal programmes. When the governments did commence activities, they were more interested in the colonial languages than in Chinese.

Allied to this point, the nature of provision in each territory was strongly influenced by traditions in the colonising country. Hong Kong's colleges of education were initially run by the Education Department, which commonly invited experts from the UK to evaluate and supervise programmes; and the UM's Bacharelato degree had a similar duration, curriculum and length of practicum to its counterparts in Portugal. Another similarity lay in the linkage between innovation and political events. Most obviously investment and reform during the 1990s was strongly related in both territories to the prospect of reunification with China.

In addition, the objectives and aims of teacher education shifted from pre-service teacher education to lifelong in-service teacher education to ensure the healthy development of teaching profession in the 21st century as both SAR governments undertook education reform. The initial teacher education qualification was upgraded from Certificate of Education or Bacharelato Degree to higher qualifications; and more local tertiary institutions offered in-service teacher education courses to meet the practical needs of daily teaching and education reform. A comparative study with mainland China indicated that teachers in Hong Kong and Macao were more willing than their counterparts in Beijing and Shanghai to take in-service courses to extend their professional knowledge and qualifications (Wu & Kwo 2003). However, as the Hong Kong and Macao teachers had heavier teaching loads, they were not willing to conduct educational research or engage in peer sharing in their own schools. The researchers argued that both SAR governments needed to create more reasonable working conditions for teachers to practice what they had learned for the benefit of the children.

On the other hand, several important differences have been observed in this chapter. One concerns the stage of development of teacher education and pace of change. Although the Macao government started proper teacher education much later than its counterpart in Hong Kong, it made major strides during the 1990s. Hong Kong was taken as a specific reference point, and the authorities were anxious to catch up. Indeed, in some respects they endeavoured to overtake Hong Kong, setting the goal that all Macao student teachers should have graduated from the four-year BEd course. In Hong Kong, by contrast, the target was for all secondary teachers to be graduates before aiming for them all to have been trained.

However, several features of Macao teacher education needed special attention. For instance, in the mid-1990s over half of Macao's teachers were migrants from the mainland who had qualifications from their places of origin. At the same time, many Portuguese teachers had been recruited from Portugal, and very few Portuguese teachers had been trained in Macao. As a result, the number of locally-trained teachers was rather small. In 1995, over 40 per cent of practising teachers had been trained by SCNU

through the part-time distance learning. These features raised the question how far the Macao government could build an education system which was separate from and independent of that in mainland China. According to the Basic Law (China 1993, Article 121), the government was allowed to operate its own education system independently from the rest of China. However, the large proportion of teachers who had received teacher education in mainland China could create obstacles in this respect. To some extent, this reflected Macao's small size and limited domestic capacity to provide specialised training for teachers.

Another distinctive feature of Macao was the large proportion of teachers who had received in-service teacher education. This was chiefly because full-time pre-service teacher education was only offered by the UM, and had only been launched relatively recently. In 1997/98, just 54 secondary and 25 primary Year One student-teachers were enrolled at the UM. Such numbers were very small compared to Hong Kong; and it seemed to show an imbalance between in-service and pre-service initial teacher education. Besides, the small number of secondary student-teachers restricted the variety of courses provided. Even though the UM offered a minor in Chinese History for Chinese-stream student-teachers and Physics for Mathematics-stream student-teachers, many subjects did not have proper teaching training.

In summary, this chapter has highlighted the development and innovation of teacher education in the two territories. By the beginning of the 21st century the Hong Kong government had achieved major quantitative targets, and was making a qualitative transition, while the Macao government was still trying its best to make both quantitative and qualitative achievements in teacher education. Further innovation was needed in both territories so that all teachers could be equipped with enough professional knowledge, skills information technology and professional ethics to face the continuing challenges in their profession.