Community College: A new born baby of the Hong Kong education system for the new millennium

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In the new millennium, there is an increasing global recognition of the importance of widening the access to higher education for accommodating students from all strata of the society for an equal educational opportunity as well as fostering the idea of life long learning and learning society (OECD, 1999a, 1999b, 2001; UNESCO, 1998). Responding to this global education reform, the SAR Education Commission proposed to encourage the establishment of various types of post-secondary colleges, while accommodating the existing institution (Education Commission, 1999, p. 22). The immediate result of the proposal was the establishment of several community colleges in early 2000, offering mainly Associate Degree programs. From the public, there are voices raising queries over the role of community college in the higher education system as well as whether community college can serve the similar function of traditional university in the provision of undergraduate education. The present paper attempts to introduce the different roles and models of community college in mass higher education systems in North America to highlight the merits and the functions of community college in mass higher education. The ultimate aim is to make some reflections on the development of community college in Hong Kong.

COMMUNITY COLLEGE: A NEW BORN BABY OF HONG KONG EDUCATION SYSTEM

Community college emerged as a new type of post-secondary institution in Hong Kong as the last millennium came to a close. In less than five months after the publication of the "Education Blueprint for the 21st Century" by Education Commission which proposed to encourage the establishment of various types of post-secondary colleges (Education Commission, 1999, p. 22), several community colleges were established by the University of Hong Kong (HKU School of Professional and Continuing Education -- Community College), the Hong Kong Baptist University (HKBU International College), the Chinese University of Hong Kong respectively to offer Associate Degree programs.

Following the announcement in his Annual Policy Address (Tung, 2000, p. 22) by the Chief Executive of the Hong Kong Special Administrative Region Government that within ten years, 60% of the senior secondary school leavers will receive tertiary education, more community colleges began to mushroom. The College of Higher Vocational Studies of the City University of Hong Kong (established since 1996), the School of Professional Education of the Hong Kong Polytechnic University, the University of Science and Technology, Lingnan University, the Hong Kong

Open University, the Hong Kong Institute of Education and various other private higher education institutions announced that Associate Degree (AD) programs will be launched in the school year of 2002.

In fact, Associate Degree programme is only one form of post-secondary qualification. The SAR government envisages the emergence of a wide range of self-financing sub-degree programmes leading to Associate Degree, higher diploma and professional diploma (EMB, 2001, pp. 2-10). The current and planned intakes to full-time, self-financing post-secondary places (Associate Degree and Higher Diploma) in 2000/01 and 2001/02 are shown in Table 1. The SAR government also takes active initiative to support the development of many of these providers into community colleges.

Table 1: The current and planned intakes to full-time, self-financing post-secondary places (Associate Degree and Higher Diploma) in 2000/01 and 2001/02

	2000/01	2001/02		
Federation for Continuing Education in Tertiary Institutions (FCE)				
UGC-funded institutions and Open University of Hong Kong	1070	3910		
Caritas Francis Hsu College and Vocational Training Council	140	1680		
Sub-Total	1210	5590		
Post-secondary college (i.e. Hong Kong Shue Yan College)	980	980		
Registered schools offering post-secondary courses (courses are subject to successful external accreditation)	1600	2400		
New providers (courses are subject to successful external accreditation)		300		
Grand Total	3790	9270		

Source: Education and Manpower Bureau (2001:3)

According to the Education and Manpower Bureau, the SAR government will offer loans to assist non-profit-making providers with their start up expenses to establish new community colleges. This policy on establishing more community colleges aims to develop a diversified higher education system, widen students' choice and encourage healthy competition (EMB, 2000, p. 10). By the end of 2001, a number of school sponsoring bodies such as, Vocational Training Council, Hang Seng School of Commerce, Po Leung Kuk, Caritas Adult and Higher Education Services, Tung Wah Group of Hospitals etc. has shown interest in establishing community colleges and offering Associate Degree programs.

To the public of Hong Kong, the establishment of community college is a rather new concept. During the British administration, undergraduate education in Hong Kong was strictly controlled by the University Grants Committee funded degree granting institutions and the Open University. Students who wished to pursue for a degree locally must enroll into one of the degree granting institutions. The policy strictly adhered to the tradition of the British higher education system prevalent in the 1950s. University was the only chartered institution for granting degrees and offering undergraduate education. This traditional concept of undergraduate education remains a popular and the mainstream thinking in Hong Kong.

It is not surprising, therefore, when the idea of community college was introduced to the pubic, doubts on the role and the function of community college were raised. At the open consultation sessions organized by Education Commission, responses were mixed. There were different interpretations about the nature and the functions of community college. Some considered community college as a post-secondary institution which offers adult education and leisure courses for the community, as a means to promote life long learning; others regarded it as a new interface

between senior secondary education and undergraduate education. Similarly, there were queries on the feasibility and effectiveness of setting up community college based on geographic location of the community, since the proximity of communities, population density, and the well developed mass transportation system of Hong Kong reduce the heterogeneity of community college in different communities. Indeed, not many people realized that community college carries a diverse range of educational functions and missions as university performs. In fact, community college in many other nations performs just as well as a miniature university and many have eventually transformed into a full size university. Many such experiences can easily be found in the development of community college in North America which will be described in the following sections.

COMMUNITY COLLEGE IN THE UNITED STATES OF AMERICA

While community college is a fresh idea to the Hong Kong public, it is a rather common feature of higher education in North America. It can be said that the concept of community college originated there and its mode of operation has produced far and wide influence on higher education systems in other nations as it has on Hong Kong now. Currently, there are 3,595 higher education institutions in the United States, with 43.8% are public and 56.2% are private. These institutions are classified into six different categories. They are: (1) Doctorate-Granting Institutions, (2) Master's Colleges and Universities, (3) Baccalaureate Colleges, (4) Associate of Arts Colleges, (5) Specialized Institutions, and (6) Tribal Colleges and Universities (Carnegie Foundation for the Advancement of Teaching, 1994). Community college belongs to category (4). In 1999, there were the 1471 public and private community colleges in the United States (Digest of Educational Statistics, 1999). They provide a diverse range of programs from sub-degree, degree, to post-graduate degree for learners (McLaughlin, 2001). The huge community college sector supplements the university system; together, they constitute the mass higher education in the United States.

To a large extent, the present landscape of the mass higher education system in the United States set out from community or regional college. Its historical root can be traced from the chartered colleges established in different British colonies on the eastern coast of North America in the 17th century colonial period. For example, the Harvard College, established in 1636 and the College of William and Mary in Virginia established in 1693, were two of the oldest chartered colonial colleges by modeling after the medieval European universities, such as Oxford University and Cambridge University. Others, like the College of New Jersey and the College of Rode Island were established based on the geographical location of the community. From 1636 to 1769, nine such colleges were established by religious organizations in the east coast (Graham & Diamond, 1997) (Table 2). These colleges were founded after many years of effort in petitioning to a royal body or the civil authorities in the colonial period. After the break from colonial status, colleges continued to grow in the 18th century. With the support from the civil government in land provision, charters were viewed as a relatively easy way to reward special interest constituencies, for building colleges might promote growth and development.

Table 2: Colleges in North America before the Independence and Formation of the United States

Present name of institutions	Original name	Year of establishment
Harvard University	Harvard College	1636
College of William and Mary	College of William and Mary	1693
Yale University	Yale College	1701
Princeton University	New Jersey College	1746
Columbia University	King's College	1754
University of Pennsylvania	Philadelphia College	1755
Brown University	Rode Island College	1746
Rutgers the State University	Queen's College	1766
Dartmouth College	Dartmouth College	1769

Source: Rippa. S. (1984:84)

The development of community or Liberal Arts College reached its peak when the United States Congress passed the Morrill Act in 1862 for establishment of at least one land grant colleges in every state in the country (Thelin, 1994, pp. 24-31). Soon after, a huge network of colleges was established in different parts of the United States. One of their chief missions was providing teacher training. Other vocational programs, such as agriculture and mechanical engineering were also offered. Community colleges paved the path of building more public universities in the following century. Clark Kerr (1990) summarized these changes over time that the public comprehensive colleges and universities were mostly originally community colleges and state teacher colleges which added many additional programs.

Currently, the mass higher education system of United States consists of junior colleges (mainly community based), colleges, institute of technology, and universities. To the American public, the meaning of college and university is often interchangeable. They share an equal status in undergraduate education. The major difference is that community college provides the foundation stage of undergraduate education where students are exposed to liberal education, while university provides the stage of completion where students develop their specialties. Under the credit unit transfer system, junior colleges offer university transfer programs. Students may flexibly begin the first two years of degree programs at junior colleges (two years) and then transfer to other four years institutions to complete their degrees. It is not unusual for students to attend more than one institution before settling on a specialized program (Hilmer, 1997; The Boyer Commission on Educating Undergraduates in the Research University, 1998, p. 22). This effectiveness of the transfer function demonstrates that community colleges are successful in preparing students for undergraduate education.

The marked difference between the role of college and university in undergraduate education also rests on the research capability of the institutions. Generally, (four years) colleges and universities offer undergraduate programs, while universities offer both undergraduate and post-graduate programs. In other words, colleges are strong in teaching but weak in research; universities are strong in both areas. But, occasionally some highly reputed colleges also offer high quality post-graduate education programs. Among one of the most noticeable private institutions of this kind is Boston College which is highly reputed in research in higher education. Reasons behind this odd phenomenon is that the administration of Boston College insists on maintaining its name as a hallmark of historical tradition, despite that its mode of operation is equivalent to a comprehensive university.

COMMUNITY COLLEGE IN CANADA

According to Statistic Canada, there were 206 public and private community colleges in 1994 (Statistic Canada, 1994). The largest community college network was found in Quebec (94), then followed by Ontario (32), Alberta (18), Newfoundland (12), British Columbia (10). Among them, 61 had enrollments of over 3,000 full-time students. Similar to the United States, the community college system plays an important role in the provision of undergraduate education (Jones, 1997, p.5).

In Canada, 'community' is defined as "the interaction of individuals who share common concerns that produces a social dimension. This community, in turn, influences the people within it' (Faris Report, Saskatchewan, 1972, p. 8). Hence, one basic principle of community college has been that "it should assist in community development by offering programs of community education and service. In rural areas, it will serve as a mechanism for the maintenance and development of a viable way of life" (Faris Report, Saskatchewan, 1972, p. 59). On top of that, community college also acts as "brokers" for other agencies such as technical institutes and university and provides courses and credits on a contract basis.

Community and regional colleges appeared in Canada in the early 20th century due much to the American influence. From the outset, most of them were privately run by religious organisations. From the 50s to 70s, some of these institutions were taken over by provincial governments and turned into a new type of public institution. Most of them maintained close affiliation with provincial university and in their early years, mainly enrolled students in university transfer program. For example, the Lethbridge Junior College, the first such public institutions in Canada, was founded in 1957 on the initiative of local school districts. The college maintained close affiliation with the University of Alberta until it was subsequently transformed into University of Lethbridge in the late 60s (Andrews et al., 1996, pp. 62-63).

As a matter of fact, most of the public and private community colleges in Canada were founded in rural areas outside of bigger cities. The chief original purpose was to extend higher education opportunity to the rural population, so that students residing in the rural community would not be deprived of undergraduate education just because of the long distance from bigger cities, where most of the major universities were located. This rationale still holds true for current community colleges in Canada. The policy aims to facilitate not only access, but equity of access. By increasing the traditional low participation rates in rural areas, it will indirectly strengthen local enterprise, contributing to the development or creation of new activities. In the long run, it will sustain or help create local or regional culture. A higher education institution which requires staff with motivation, scientific culture, methodological rigour and experience of active life can become the embryo of culture life of a community.

Recent development in community college in Canada has been encouraging. After successful operation for several decades, a number of public community colleges have been allowed to be upgraded as university colleges with degree granting power. For example, Fraser Valley Community College and Okanagan Community College in British Columbia were renamed as University College of the Fraser Valley and Okanagan University College respectively in the late 80s. In the private sector, Private Colleges Accreditation Boards were set up to approve program leading to a baccalaureate. From 1994 onward, four non-profit private colleges in Alberta have received authority to grant baccalaureate degree in approved programs. In other words, community college becomes a platform for higher education expansion for Canada.

REFLECTION ON COMMUNITY COLLEGE IN HONG KONG

Community college is surely a new born baby in the education system in Hong Kong. It is certainly the main focus of development in the coming decade. In May 2001, the SAR Government, in explaining the fulfillment of the target of providing 60% of the relevant age group with tertiary education, announced that the Associate Degree places will be expanded to around 30,000 in number in the next 10 years. Community college will be developed as one of the main providers of these places. To date, these newly founded community colleges in Hong Kong are modeled after the community or regional colleges in North America, since they have much resemblance on their counterparts in North America in terms of programs offered. They mainly launch associate or sub-degree programs. Upon completion of the associate degree, students can transfer to other universities to complete their degree programs, based on a credit unit transfer system. For instance, over 10 overseas universities have agreed to accept graduates of Hong Kong Baptist University's Associate Degree programmes for direct admission to their degree programmes. Similarly, 28 local and overseas universities (including the University of Hong Kong) have agreed to accept Associate Degree graduates of HKU SPACE's Community College (EMB, 2001, pp. 1-3). This new arrangement indeed has widened access for those students who possess the ability and the will to pursue for a degree but have failed to enroll in degree programs at local universities because of the highly selective admission conditions.

As illustrated in Figure 1, the highly selective nature of Hong Kong education system has created many barriers for those who aspire for a degree. Public examination (Hong Kong Certificate of Education Examination and Hong Kong Advanced Level Examination respectively) has always been the sole device for screening students for sixth form education and admission to higher education in Hong Kong. Despite higher education expansion since the 90s, keen competition for undergraduate education remains. Data in 1996 indicated only 38% of students entered sixth form courses after secondary five (UGC, 1996, p. 1), while only half of the students who sat for the Hong Kong Advanced Level Examination were admitted to degree programmes funded by the University Grants Committee (UGC). This bottle neck phenomenon is expected to remain for some time as degree places has been strictly restricted to 14,500 (in number) by UGC since 1996.

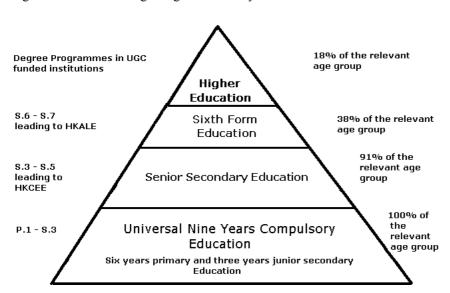


Figure 1: Profile of Hong Kong Education System in 1999

With the introduction of community college, students are given more options to consider and the higher education progression path becomes highly flexible. Students will no longer be restricted to a narrow choice of programs and institutions simply because of the availability of places or due to performance of a single public examination. Community college also provides flexibility to those students who do not wish to enter higher education immediately after senior secondary education but would like to work or travel for a few years upon completion of senior secondary education. Community college allows students to enter higher education at their most desirable time.

Nevertheless, at present, some courses offered by the local community colleges have not received approval from the local degree granting institutions yet. It seems that the only option for students is to continue their study at overseas institutions where credit transfer agreement exists.

It is very crucial that local community colleges resolve this issue in the near future as the flexibility of community college lies in the credit unit transfer system. Based on this system, courses taken at community colleges will be recognized by universities, as long as the result achieved an above average level. This may mean a grade C or above, or it depends on the negotiated arrangement between institutions. This flexible arrangement enables students to enter program and to transfer to another one when the risk is lowest. During the first two years at college, students may choose between courses of generic or interdisciplinary nature which enables them to discover more deeply about the nature and content of the subject discipline before deciding on the final and most desirable subject discipline that matches one's own career goal, personal interests and needs in the subsequent degree programs.

After all, one of the goals of the current education reform in higher education is how to encourage universities to adopt a genuine system for fully transferable credit units (Butler and Hope, 2000; Education Commission, 1999, p. 22). Should this goal be realized, it will have tremendous implication on the future development in higher education in Hong Kong. Briefly speaking, it would reduce unnecessary competition between institutions and widen up individual choices of programs and institutions. The success of credit unit transfer system in community college is an important advancement leading to a comprehensive introduction of credit unit transfer system in all the degree granting institutions.

For Associate Degree programs to be recognized by universities as well as by the public as a whole, quality assurance is of utmost significance. One important step to ensure quality before a course is conducted is accreditation. At present, Associate Degree programmes offered by the UGC-funded institutions and the Open University of Hong Kong, which are self-accrediting institutions (except Hong Kong Institute of Education), have their own internal accreditation mechanisms. Associate Degree programmes offered by other institutions are to be accredited by the Hong Kong Council for Academic Accreditation (HKCAA) to ensure consistency and comparability.

Apart from providing more tertiary learning opportunities, the SAR Government must also encourage student participating by support measures by expanding financial assistance to qualified needy students. The SAR Government propose to introduce a means-tested grant scheme for most needy students, offer means-tested low-interest loan for other needy students and extend non-means-tested loan to all students.

The total amount of financial assistance will depend on the pace of development acting on market force, the number of applicants and the financial circumstances of their families. Based on the projected student number in Table 2, and assuming that the number of student places will increase progressively on a straight-line basis over the remaining 9 years, the rough estimates by the EMB (2001) are summarized in Table 3.

Table 3: Estimated number of student financial assistance in Associate Degree programmes 2001-2012.

	2001	2010	2012 (Full Effect)
			(Full Effect)
Additional Student Number			
Additional first-year student intake	6570^1	30 600	30 600
Additional student enrolment	8.760^{2}	68 960	82 400
(1) Means-tested grant for most needy students ³			
No. of beneficiaries	760	5 990	6 470
Estimated amount of grant (\$mil)	46	360	388
(2) Means-tested loan for other needy students			
No. of beneficiaries	3050	23970	25 900
Estimated amount of loan (\$mil)	93	734	793
otal no. of beneficiaries of (1) and (2)	3 810	29 970	32 370
(3) Non-means-tested Loan Scheme ⁴			
No. of beneficiaries	700	5 520	5 960
Estimated amount of loan (\$mil)	52	412	445
(4) Student Travel Subsidy			
No. of beneficiaries	3 810	29 970	32 370
Estimated amount of subsidy (\$mil)	11	86	93

Source: Education and Manpower Bureau (2001, p. 8)

Critics of the policy of expanding Associate Degree places opine that this is only a government measure to alleviate the general sense of frustration of those who are not admitted to tertiary education under the existing higher education structure. They claim that the government in so doing only postpones the time for the senior secondary school leavers to face the problem of employment, especially at this period of economic downturn. What the government should do in counteracting such opposition is to convince the public of the importance of economic and social benefits, both to the individual and to society as a whole, of a raise in education standard of a large proportion of the population. Secondly, the government should also start educating the public to readjust their expectation for economic benefits of education. While the notion that education is an investment that pays still holds true, the expectation for the "pay" should be realistic. The reality of mass higher education is that as more students receive it, the economic and social benefits will no longer be confined to a small group, as in the days of elite higher education. Hence while everybody in the higher education sector still gains, the gain (such as lifelong income) will probably not be comparable to their counterparts in an elite higher education system. The general uplifting of education standard of a majority of the relevant age group, rather than a minority, is nevertheless a healthy feature that should be supported. It is indeed an important step in human and social capital investment in Hong Kong in the new millennium.

Further expansion in first degree places among UGC institutions is still under careful consideration. Most likely, it will be pending on the results and findings of the new round of higher education review conducted by the University Grants Committee from 2001-02 under the Chairmanship of Lord Sutherland and the planning of the next triennium budget of the UGC. Before any new plan is made, the new learning opportunity opened up by community colleges

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² The figure includes 6 570 first-year students and 2 190 second-year students currently pursuing their first-year programme in 2000/01.

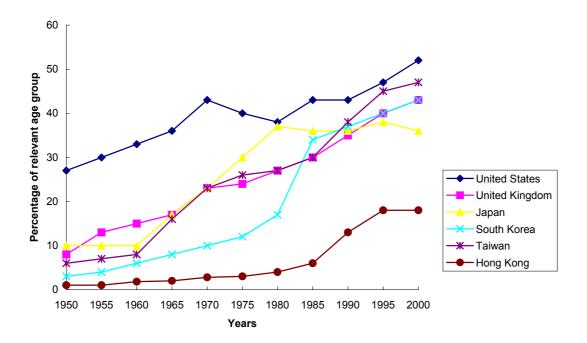
¹ The figure includes 5 590 places offered by FCE and 980 places offered by Hong Kong Shue Yan College.

³ The above estimates are based on the LSFS application exercise in 2000/01. EMB assumes that 43.5% of students will receive mean-tested financial assistance. Of them, 20.5%, will be eligible to receive mean-tested grant. This is equivalent to the ratio of recipients receiving maximum grant under the LSFS. On average, students will be eligible to 51% of the maximum loan entitlement.

⁴ The above estimates are based on the NLS application exercise in 2000/01. EMB assumes that 8% of students will apply for NLS and that they will apply for up to 84.3% of the loan ceiling.

would certainly help lessen the pressure of the demand for undergraduate education, which is inevitably rising owing to the rapid population growth, economic and social development in the past decades. Developing along this trend, Hong Kong has joined many developing and developed nations in accommodating a wider participation in higher education as an important strategy for enhancing economic, social, and cultural development in a fast changing global knowledge based economy as illustrated in Figure 2 (OECD, 1999, p. 19, 2001, pp. 9-11; UNESCO, 1998).

Figure 2: Comparative Enrolment Rates in Higher Education 1950-2000



Sources: Department of Education and Science, Statistics of Education for the UK, HMSO, London;

Department of Education and Science (to 1979) Statistics of Education, Vo.l.16

University Grants Committee, London;

Department of Education and Science (from 1980)

UGC University Statistics, Vol.1. University Statistical Record, Gloucester

US Department of Education, as published in The Almanac of Higher Education 1989-90, Chicago

University Press.

 $Ministry\ of\ Education\ ,\ Taiwan\ (1995)\ Educational\ Statistics\ of\ Republic\ of\ China,\ 1995.$

Ministry of Education, Korea (1987, 1995) Statistical Year Book of Education, 1975 - 1992.

Ministry of Education, Japan (1995) Development of Education in Japan, 1990-1992.

University Grants Committee, Hong Kong (1989-1993)

OECD (1999) Education Policy Analysis-1999.

* The figures confine to enrolment of university level

The higher education development pattern described in Figure 2 shows the continuous expansion of higher education in the five selected countries, as compared with that of Hong Kong. In the immediate post-World War Two period, higher education expanded first in the United States, then in Europe, and later in the third world and the newly industrialized countries (Altbach,1999, p. 21). Developed nations in the West such as the United States or the United Kingdom¹ invested generously in higher education in order to foster economic recovery and reconstruction. Under the auspices of the United States, Japan also expanded its higher education in 1950. Japan retained the expanded student enrolment rate at around 10% in the decade after 1950, while the United States and United Kingdom investment increased by 5% to 7% in the same period. As for South Korea and Taiwan, due to their respective political situation in the early 1950s², their higher education only started to develop then. The rate of expansion maintained at a slow but steady growth.

In the 1960s, all the five countries underwent rapid expansion in higher education. There was a corresponding increase in the rate of economic growth. During the period of economic downturn in the mid 1970s and early 1980s, higher education continued to expand, though at a comparatively much slower pace in all these countries, except the United States. The enrolment percentage of the United States dropped by about 5 to 7% between 1970 and 1980. Expansion in higher education in the United States resumed its steady pace of development in the 1980s and the 90s (Altbach, 1999, pp. 20-24; Trow, 1989). In 1996, there are 14.6 million students were enrolled in universities and colleges in the United States, and 1.6 million students enrolled in higher education in United Kingdom (Robertson, 1999, p. 23). In the other developing nations, higher education continued to expand rapidly during the 1990s.

These countries have found the money well spent, given the rapid economic development in the 1950s and 1990s (Drucker, 1993, pp. 186-193; Green 1999, pp. 203-205; OECD 1999a, 1999b; Robbins Committee Report 1963, p. 23³; Robertson, 1999, pp. 17-35; Silver and Silver, 1997; Trow, 1989). The slowing down of higher education expansion in the nations in the 70s, however, should not lead to a wrong conclusion that when the government began to invest less in higher education, the economy crumbled. Certainly, the world economic slump in the 1970s was the result of many other factors such as the Oil Crises, and the slow expansion of higher education was merely its by-product. In fact, the cut in educational investment was a consequence rather than a cause of the economic setback. In the United States, despite the drop in enrolment percentage by 5% to 7% between 1970 and 1980 in this period, the percentage of student enrolment was maintained at a very high level (37% in 1980). It was certainly still one of the highest in the world. So, the more important focus of the issue is why the governments of the United States and the United Kingdom, continued

¹Silver and Silver(1997:14-15) accounted that in 1938-9, there were 50,000 students in UK universities (when higher education in fact meant the universities). A rapid but painful process of post-war growth took numbers to nearly 80,000 in 1947 and 90,000 in 1956. In the early 60s, there were only 16 universities in the Great Britain; university education was still elitist. The first higher education expansion in the United Kingdom took place after the release of Robbins' Report in 1963, which stated that "All young persons qualified by ability and attainment to pursue a full time course in higher education should have the opportunity to do so". The 70s was a slow growth period as affected by global economy.

² Korea was challenged by the civil war in the early 1950s. Republic of China has just moved to Taiwan and continued its administration since 1949.
³ Robbins Committee Report (1963 p.23) expressed a view that increasing the volume of higher education not only results in an increased rate of economic growth, but is the key to survival in an increasingly technological age. However, it is worth to note that, Barnett (1999) pointed out that the Robbins Report can be understood as an internal report of an academic community, assured of itself and of higher education as an existing social and educational good. The Dearing Report, in contrast, can be understood as an external document of the wider society and the polity. The basic distinction of the two reports are Dearings stressed more on key words, such as global economy, economic and international competition, concern on research, the concept of lifelong learning and the application of information technology. These differences are much due to the changing expectations on higher education in the era of knowledge-based global economy.

⁴ Scott (1995), Williams, (1996), and Dearing Committee Report, (1997) described that from the 1980s to the 1990s, Britain's higher education system tripled its size especially after the Education Reform Act in 1988 and the White paper "A new Framework" was released in 1990. It recommended (1) single funding structure for universities, polytechnics and colleges of higher education. Polytechnics may use the title university. (2) National vocational qualifications to be introduced quickly. (3) Sixth forms may include part-time and adults students. (4) All 16 and 17 years olds should receive training credit on leaving full-time education. (5) All further education colleges and sixth-form colleges should be independent

to maintain a high investment in higher education during years of economic difficulty. Similarly, why did the private sectors and governments of Japan, South Korea, and Taiwan continue to increase their investment in higher education during the difficult years?

The answer looks obvious: human capital investment as advocated by human capital theory indeed influence governments when formulating higher education policy⁵ (Amano,1997; Blaug, 1970; Green, 1999; Lee et al., 1994; Milne, 1999, p. 84; OECD, 1998, 1999a; Shen, 1990). These researches all supported that even though higher education was not the panacea to the economic setback, it would continuously produce a supply of higher quality labour who possess positive working attitudes such as lifelong learning, high adaptability to work pressures, discipline and responsibility, and most important of all; an aspiration for higher living and earning standards along with the confidence and ability to achieve both.

The continuous efforts of these governments in human capital investment especially in the tertiary level even in difficult years proved that high level human capital was an important asset. When the economy began to recover in the late 80s; it imminently activated its potential to interact with and facilitate the other factors that stimulated economic growth. This is mainly due to this fact that when the economy recovers, the human capital investment always reaps the benefits.

Albeit the present economy of Hong Kong is still suffering from the adverse impact of the Asian Financial Crisis in 1999 and the more recent catastrophic terrorist attack in New York in 11st September, 2001, the SAR government still deems it necessary to invest continuously in human capital for a rapidly changing knowledge based economy as a means to maintain and sustain our global competitive edge. The founding of community college will provide a promising opportunity for further higher education expansion to meet this end. Community college may grow to become a full size university after years of successful operation and when demand for higher education continues to grow. After all, the Chinese University of Hong Kong, the Hong Kong Baptist University, the Lingnan University, and the Hong Kong Institute of Education are such distinctive examples of "college turned degree granting institutions".

References

Altbach, P. (1999). Patterns in higher education development. In P. G. Altbach, R. O. Berdahl & P. J. Gumport (Eds.), American higher education in the twenty-first century (pp. 15-37). Baltimore, MD: Johns Hopkins University Press

Amano, I. (1997). Structural changes in Japan's higher education system—from a planning to a market mode. Higher Education, 34(2), 125-140.

Andrews, M. (1997). Postsecondary education in Alberta since 1945. In G. Jones (Ed.), *Higher education in Canada : Different systems, different perspectives*. New York: Garland Publishing.

Barnett, R. (1999). The coming of the global village: A tale of two inquiries. Oxford Review of Education, 25(3),

of local authorities. The latter became a legislature in 1992. In mid 90s, there were 103 universities in the United Kingdom. There were roughly one and half million students in UK higher education, almost one million of whom were on full-or part-time first degree courses. Higher education was transformed into mass system. The main rationale for higher education expansion in this period, therefore, was a response to economic needs and popular social demand, which bore a strong implication of social equity.

⁵ Amano(1997) pointed out that "The Education White Paper" of Japan in 1962 entitled "Growth and Education in Japan" argued for increased investments in education and expansion of higher education as a basis for accelerated economic growth. This paper was influential to the development of mass higher education from 60s until the early 70s when the oil shock of 1973 slammed the brakes on its development. Lee et al (1994) pointed out contemporary education policy in South Korea was basically economically orientated; it has been designed to promote and develop a structure of industries patterned after Japan. Shen(1990) stated that Taiwan adopted manpower forecasting techniques in educational planning after inviting consultants from Standford university in 1962. Six manpower reports were produced in the following 15 years. Human capital formation for economic needs was closely related to education policy.

- 293-306.
- Blaug, M. (1970). An introduction to the economics of education. London: The Penguin Press.
- Butler, R., & Hope, A. (2000). A documentary study of arrangements for credit accumulation and transfer in higher education. Hong Kong: University Grants Committee. [On-line]. Available: http://www.ugc.edu.hk/english/documents/credit/cover.html
- Dearing, R. Lord (1997). *The national committee of inquiry into higher education: Higher education in the learning society.* London: The Secretaries of State for Education and Employment, Wales, Scotland, and Northern Ireland.
- Drucker, P. (1993). Post-capitalist society. New York: Harper Collins.
- Education and Manpower Bureau. (2001). A paper prepared for Legislative Council Panel on Education, Subcommittee on Increase in Post-secondary Education Opportunities, Paper No.CB(2)1664/00-01 (02). Hong Kong: Government Printer.
- Education Commission. (1999). *Review of education system: Framework for education reform Learning for life.* Hong Kong: Hong Kong SAR Government.
- Graham, H.D., & Diamond, N. (1997). *The rise of American research universities*. Baltimore: Johns Hopkins University Press.
- Green, A., Wolf, A., & Leney, T. (1999). *Convergence and divergence in European education and training system*. University of London, the Institute of Education, United Kingdom.
- Hilmer, M. (1997). Does community college attendance provide a strategic path to a higher quality education? *Economics of Education Review, 16*(1), 59-68.
- Jones, G. (1997). Higher Education in Canada: Different systems, different perspectives. New York: Garland Publishing.
- Kerr, C. (1990). The American mixture of higher education in perspective: Four dimension. Higher Education, 19(2), 1-19.
- Lee, S. (1989). The emergence of the modern university in Korea. Higher Education, 18, 87-116.
- McLaughlin, G. (2001). The community college: a view from the United States. Key note speech presented at The Symposium on the Associate Degree and the Community College: New Pieces in the Puzzle of Hong Kong's Higher Education System, the Chinese University of Hong Kong, 10th December, 2001.
- Milne, P. (1999). The role of universities in economic growth: the ASEAN countries. In H. Gray (Ed.), *Universities and the creation of wealth*. Buckingham: Open Universities Press.
- OECD. (2001). The well-being of nations: The role of human and social capital. Paris: OECD.
- OECD.(1999a). Redefining tertiary education. Paris: OECD.
- OECD.(1999b). Education policy analysis. Paris: OECD.
- Rippa, S. (1984). Education in a free society: An American history. London: Longman.
- Robbins, L. Lord (1963). Higher Education Report. London: Her Majesty's Stationary Office.
- Roberston, D. (1999). Knowledge societies, intellectual capital and economic growth. In H. Gary (Ed.), *Universities and the creation of wealth*. Buckingham: Open University Press.
- Saskatchewan. (1972). Report of the minister's advisory committee on community colleges. Regina: Department of Continuing Education.
- Scott, P. (1995). The Meanings of mass higher education. Buckingham: Open University Press.
- Shen, S. S. (1990). Higher Education and Graduate Employment: University Traditions and Economic Planning Imperatives: A Case Study of Taiwan (The Republic of China) with reference to Britain and the U.S.A. Unpublished PhD thesis, University of London, the Institute of Education, United Kingdom.
- Silver, H. & Silver, P. (1997). Students. Buckingham: Open University Press.
- The Boyer Commission on Educating Undergraduates in the Research University. (1998). *Reinventing undergraduate education: A blueprint for America's research universities*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.

- The Carnegie Foundation for the Advancement of Teaching. (1994). *A classification of institutions of higher education*. Princeton: The Carnegie Foundation for the Advancement of Teaching.
- The University Grants Committee of Hong Kong. (1996). *Higher education in Hong Kong*. Hong Kong: Government Printer.
- Thelin, J. R. (1994). Campus and Commonwealth: A historical interpretation. In P. G. Altbach, R. O. Berdahl & P. J. Gumport (Eds.), *Higher education in American society* (3rd ed., pp. 21-36). Amherst, NY: Prometheus Books.
- Trow, M. (1989). American higher education past, present and future. Studies in Higher Education, 14 (1), 5-22.
- UNESCO. (1998). World declaration on higher education for the twenty-first century: Vision and action and framework for priority action for change and development in higher education. Paris: Author.
- Williams, G. (1996). The many faces of privatisation. Higher Education Management, 8(3), 39-56.

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