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SOCIAL CHANGE AND EDUCATIONAL PROBLEMS IN  
THREE MODERN ASIAN SOCIETIES:  
JAPAN, SINGAPORE AND HONG KONG.  
A COMPARATIVE STUDY.

WING ON LEE

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A Thesis Submitted in Fulfilment of  
the Requirements for the Degree of  
Doctor of Philosophy  
in  
the University of Durham

May 1988



- 4 OCT 1989

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## THESIS ABSTRACT

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Social Change and Educational Problems in  
Three Modern Asian Societies:  
Japan, Singapore, and Hong Kong.  
A Comparative Study.

The main theme of the thesis is a discussion of education and social change in the three East Asian societies over the post-war period. The thesis is divided into four sections. The first is a background study. In this section, the social and educational background of the respective societies are discussed. Special attention is paid to the stress on modernization as a common orientation in social developments. Major concepts and definitions of modernization are discussed and an attempt is made to study the modern development of these societies in the light of modernization theories.

The second section is a discussion of education in technological societies. The concepts of industrial, post-industrial and technological societies are discussed in the light of the works of the major social theorists and futurologists. The development of technology and its relationships with education are outlined. Further, the social implications and problems of technological and scientific education are analysed.

The third section is a discussion of education in rapidly changing societies. The acceleration of social change in modern societies is traced. Rapid changes in the educational scene of the respective societies are also outlined. The social implications and problems of the rapidity of change and the role and functions of education in face of rapid change are discussed.

The fourth section is a discussion of the emergence of credentialism in modern societies and its manifestation in education. Negative aspects of diplomaism, excessive competition and examination systems are discussed.

In conclusion, an overall review of the relationships between education and social development is made. There is an analysis of the fundamental educational problems of modern societies, and finally, in this context, a suggestion that the objectives of education should be reconsidered.

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## INTRODUCTION

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The issue of social change in modern times has attracted much attention and discussion. Social change is an important contemporary issue, for change is a condition of modern life in all countries of the world. "Of one thing we can be sure: All the world changes. Life in our many societies is on the move," says Francis Allen.<sup>1</sup> As a result, social change has been a major issue of discussion among many social theorists. Alvin Boskoff points out that nearly all eminent philosophers or social theorists have discussed social change.<sup>2</sup> The major classical writers on the topic include Herbert Spencer, Auguste Comte, Emile Durkheim, Max Weber and Karl Marx, whose works will be discussed later. The perspectives and scope of their writings vary, but, as a coincidence, all of them have touched upon the phenomena and the effects of social change in one way or another.

What is social change? A host of definitions have been given by different writers. According to Henry Fairchild's *Dictionary of Sociology*, social change is any change in society. It implies

variations or modifications in any aspect of social process, pattern, or form. (It is) a comprehensive term designating the result of every variety of social movement. Social change may be progressive or regressive, permanent or temporary, planned or unplanned, uni-directional or multi-directional, beneficial or harmful."<sup>3</sup>

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<sup>1</sup> See Francis R. Allen, *Socio-Cultural Dynamics: An Introduction to Social Change* (New York: Macmillan, 1971), p. 1 and Cyril Edwin Black, "Change as a Condition of Modern life" in Myron Weiner, ed., *Modernization: The Dynamics of Growth* (New York: Basic Books, 1966), pp. 17-27.

<sup>2</sup> Alvin Boskoff, *The Mosaic of Sociological Theory* (New York: Thomas Y. Crowell, 1972), p. 198.

<sup>3</sup> Henry Pratt Fairchild, ed., *Dictionary of Sociology* (Totowa, N.J.: Littlefield, Adams & Co., 1970), p. 277.





Morris Ginsberg offers a more concrete definition. Social change for him means mainly change in social structure. However, he also argues that change in social structure is at the same time accompanied by changes in attitudes or beliefs.

Social change I understand as change in social structure, for example, the size of a society, the composition or balance of its parts or the type of its organization. Examples of such changes are the contraction in the size of the family,... the breaking up of the dominal economy with the rise of cities, the transition from "estates" to social classes.... The term social change must also include changes in attitudes or beliefs, insofar as they sustain institutions and change with them.<sup>4</sup>

Wilbert Moore suggests a more positive relation between structural change and cultural change. According to Moore,

Social change is the significant alteration of social structures (that is, of patterns of social action and interaction), including consequences and manifestations of such structures embodied in norms (rules of conduct), values, and cultural products and symbols.<sup>5</sup>

Following these emphases on the inter-relationships between change in social structure and culture, Allen suggests that social change can best be understood in terms of socio-cultural dynamics:

Social change comprises modifications in social systems or subsystems in structure, functioning, or process over some period of time. Such modifications in man-man (group) relationships may relate to community, state, regional, or national structures or functioning or process, or to subsystems (such as industry, government schools, churches, or family life).<sup>6</sup>

Social change is indeed a complex issue that cannot be understood in isolation.<sup>7</sup> As different parts of society interact with one another, change in one part will

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<sup>4</sup> Morris Ginsberg, "Social Change", *British Journal of Sociology*, 9(3), Sep 1958, 205.

<sup>5</sup> Wilbert E. Moore, "Social Change" in *International Encyclopaedia of the Social Sciences*, Vol. 14 (New York: Macmillan and Free Press, 1968), pp. 3-4.

<sup>6</sup> Allen, *op. cit.*, p. 39.

<sup>7</sup> See Duncan Mitchell, *A Hundred Years of Sociology* (Chicago: Aldine, 1968), pp. 163-164.

inevitably lead to change in another. Hence change in social structures may lead to change in the cultural sphere, or *vice versa*. The analysis of social change and education that follows will be made in accordance with this assumption.

It is widely held that a major force leading to radical social changes in society is industrial revolution. It seems that industrial revolution serves as a watershed that demarcates the modern era from the traditional one. Following the initiation of mechanization, the increasing pace of technological development in the modern social scene is most distinctive in human history. Moreover, as a result of increasing international interactions, changes that have taken place in the Western advanced countries rapidly spread to the other parts of the world. Social change in the countries that follow the Western countries is particularly characterized by the process of modernization. Modernization appears to be an outstanding phenomenon in many parts of the world since the war. As S. N. Eisenstadt remarks, Modernization and aspirations to modernity are probably the most overwhelming and the most permeating features of the contemporary scene. Most nations are nowadays caught in its web - becoming modernized or not.<sup>8</sup>

Japan, Singapore and Hong Kong are East Asian societies. All of them are islands, except that Hong Kong has also a peninsula. All of them are relatively small in size, and Singapore is exceptionally small as a country. What is more, all of them lack natural resources. Hence they have to strive hard, to compete, and to develop in order to survive. Maybe because of this, they have one other feature in common - all of them have embarked on the process of modernization. Japan was the earliest country in Asia to modernize. Its modernization was so successful in such a short period of time that it has alarmed the world on account of its military strength before the war and its economic strength after the war. Indeed, it is the first country in Asia that can be placed among the advanced countries. Singapore and Hong Kong began to catch the world's attention in the seventies. Together with

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<sup>8</sup> S. N. Eisenstadt, *Modernization: Protest and Change* (Englewood Cliffs, N.J.: Prentice-Hall, 1966), p. 1.

Taiwan and Korea, they are called Asia's Big Four.<sup>9</sup> They are now placed among the New Industrial Countries. All this denotes the success of their modernization attempts.

It should be noted that all the three societies have been under direct Western influences. Hong Kong is still a British colony. Singapore was a British colony until 1965. Japan, although has never been a colony, was under American occupation between 1945 and 1952. These years of being subjected to direct Western influence have no doubt accelerated the modernization process. At the same time, although they are "later-comers" in modernization, with direct contact with the West, they have in turn contributed to further industrial developments of the West.<sup>10</sup> With their efforts of modernization, and with some direct influence of the West, they provide exemplars of success in modernization.

Social change can best be understood in terms of the inter-relationships between different sectors of society. It follows that the process of modernization affects and is affected by different sectors of society. Among all the different sectors, education is one that has received much attention in works on social change and modernization. As Durkheim says, "Educational practices are not phenomena that are isolated from one another; rather, for a given society, they are bound up in the same system all the parts of which contribute toward the same end: it is the system of education suitable to this country and to this time."<sup>11</sup> Few analysts discuss the issue of social change without mentioning education. For example, Eisenstadt particularly singled out the educational field in his analysis of modernization.<sup>12</sup>

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<sup>9</sup> Literally, they are called Asia's Four Little Dragons. Some prefer to call them Asia's Gang of Four. As the term "Gang of Four" may have a connotation of China's Gang of Four, I prefer to call them Asia's Big Four.

<sup>10</sup> This is particularly a view stressed by the theory of dependency, according to which colonialism has benefited the industrial countries in terms of the colony's supply of raw materials or cheap labour for the development of industries in the advanced countries. For a brief introduction of the concept, see Nicholas Abernethy, Stephen Hill and Bryan S. Turner, *The Penguin Dictionary of Sociology* (Harmondsworth: Penguin Books, 1984), p. 65.

<sup>11</sup> Emile Durkheim, *Education and Sociology* (Glencoe, Ill.: Free Press, 1956), p. 95.

<sup>12</sup> Eisenstadt, *op. cit.*, pp. 16-18.

Robert Lauer suggests that social change can be studied or understood at one or more levels. And education falls into the category of the institution level to be studied.<sup>13</sup>

In fact, education can be understood as an integral part of society in social change, and education has become a prominent feature of all modern societies. Randall Collins has observed two major trends in modern society. First, there is the very considerable amount of technological change with especially pronounced effects in the twentieth century on economic productivity and the organization of work. The second trend is the growing prominence of education in our lives.<sup>14</sup> There is no doubt that education has been increasingly considered important as an instrument for enhancing technological development and facilitating the modernization process.

There is an implicit end in developing education for technological development - economic prosperity. It is clear that economic growth has been a major concern for those countries that employ education for the sake of technological development. This is true in the cases of Japan, Singapore and Hong Kong. Whilst this is the major objective of educational development, other objectives such as structured inequality, cultural differences, social-class hierarchies and class conflicts, will fall into secondary importance or are neglected.<sup>15</sup> Hence it can be observed that when the technological-economic concern has dominating significance, technological advancement and economic growth are pursued at the expense of all other social objectives. A major concern of this thesis is to examine whether this is also true for the successfully developed East Asian societies: Japan, Singapore and Hong Kong.

The thesis is organized into four sections. The first is a background study. In

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<sup>13</sup> Robert H. Lauer, *Perspectives on Social Change*, second edition (Boston: Allyn and Bacon, 1977), pp. 4-5.

<sup>14</sup> Randall Collins, *The Credential Society: An Historical Sociology of Education and Stratification* (New York: Academic Press, 1979), p. 3.

<sup>15</sup> Rolland G. Paulston, "Social and Educational Change: Conceptual Framework", *Comparative Education Review*, 21(2-3), Jun-Oct 1977, 383.

this section, attempts are made to trace the changes in the social, economic and cultural outlook of these societies in the modern era. Emphasis is placed on the analysis of the post-war period. The focus of attention on the post-war period is important in this context as it is in the post-war period that the development of Singapore and Hong Kong has become well known. As has Japan's overwhelming economic prosperity. As well as delineating the economic growth of the three societies in this post-war era, the changes in social structures and values are also discussed.

Social change in the modern times is essentially characterized by modernization. Hence, it is worth looking into the concept of modernization and the process of modernization in these countries. Modernization and Westernization are terms that are sometimes used in a loose manner. However, they are distinguishable concepts. What is more, tensions between modernization and Westernization can always be observed during the process of modernization. Modernization does not take place only in social structures, but also in other cultural areas, such as values and religions. The main thrust of this chapter on socio-economic-cultural background is to show that under the process of modernization, the three societies are at present experiencing certain social change in both social structures and cultures. At the end of the chapter, it will also be illustrated that all three societies possess favourable conditions for the establishment of modern educational systems.

As the present study is mainly an analysis of educational development in the three societies, a chapter is devoted to educational background of each. This chapter follows from the previous one showing that modernization takes place at the education sector as well. That is to say, all three societies have successfully developed modern educational systems. As will be illustrated, all of them possess a complete structure of education, from pre-primary to tertiary levels. Moreover, other educational facilities are available in the three societies, including non-formal education and special education. The development of the modern educational sys-

tems requires careful consideration by the government. Hence, the governments of the three societies, in the process of modernization, have played a significant role in developing and expanding the education sector. A major objective is to facilitate the development of technology.

The next section describes in detail how scientific and technological development are emphasized in the process of modernization. It begins with a study of the emergence of the concept of the technological society. It argues from the perspective of the convergence theory that, as modernization is becoming a worldwide trend, and as technological development is embedded in the process of modernization, most societies in the world are also becoming technologically orientated societies. This is true for Japan, Singapore and Hong Kong. A review of government policies in the three societies in the post-war period reveals that all of them have been aware of the significance of developing technology, for the promotion of industrial development and economic growth.

Corresponding to the general awareness of the importance of technological growth, the next chapter shows that this awareness is manifest in the education sector. In all these societies, the promotion of science and technology education has been a major concern in the education sector throughout post-war period. The final chapter of this section analyses the problems arising from the over-emphasis on science and technology education. A major boost to science and technology education is presumably based on the belief in the human investment theory. However, apart from the doubts that have been cast on the theory, there are other problems to be faced when the development of education is centred on scientific and technological development. When all these considerations are put together, they explain why the development of technical education has not been satisfactory, in spite of much effort spent by the governments.

The third section describes the rapid social change in which has taken place,

in addition to the major orientation of technological development. It is clear that modern societies are developing more rapidly than at any period in the past. Rapid change is not confined to the Western industrial countries, but takes place in all industrialized or industrializing countries. Japan, Singapore and Hong Kong all possess the necessary conditions for rapid social change.

Change takes place in the education sector also. This is particularly seen in the rapid expansion of the educational systems, which is a result of both the government efforts and the growing aspirations of the general populace. Moreover, as will be shown, there are rapid changes in educational policies as well.

There are costs to pay for the rapidity of change. Too rapid a change is always accompanied by confusion, conflicts and adjustments. It is here that the concept of "future shock" is found relevant, as it denotes the distress caused by requiring enormous efforts to adjust to drastic changes. Alarming though, it is found that in the midst of rapid social and educational changes, one aspect changes very little or very slowly - the sphere of social equality. Hence, it is worth looking into what the situation is in the three societies, and how and why it remains unchanged.

The fourth section further studies education in credential societies. This section is significant in the sense that it distinguishes credentialism as a major factor that has caused the slow change in social equality in the midst of rapid social and educational changes. The causes and functions of credentialism in modern societies are studied, with reference to Japan, Singapore and Hong Kong. As in the previous sections, the costs of credentialism will also be discussed.

In the conclusion, a summary of the discussion throughout this is outlined. Also, there are attempts to discuss where the crux of educational problems resides. Following this, there is a call for the re-consideration of educational objectives in the modern world.

Section One

Social and

Educational Background



## CHAPTER ONE

### SOCIAL BACKGROUND

---

#### A. The Socio-Economic Environment

##### 1. Economic Miracles

Japan, a country lying at the north-east corner of the Far East, is composed of four main islands and some 30,000 islets and rocks. It has a long independent history. It is scenery-rich but resource-poor. It lacks nearly all vital minerals for industry. Hence it has to import over 99 per cent of the supply of petroleum products, and over 83 per cent of copper must be imported to meet industrial needs.<sup>1</sup>

Singapore, a country lying off the southern tip of the Malay Peninsula, is composed of the Singapore Island itself and some 54 islets. It was under British rule for over a hundred years. In 1965, it became an independent sovereign state - the Republic of Singapore. With no natural resources and only limited land space, its original livelihood was mainly dependent on the entrepot trade.<sup>2</sup>

Hong Kong, situated on the south-east coast of China and lying at the mouth

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<sup>1</sup> See Ardath W. Burks, *Japan: Profile of a Postindustrial Power* (Colorado: Westview Press, 1981), pp. 28-9. In 1965, imported energy comprised 66.2 per cent of the total energy consumed in Japan. Since 1970, the imported energy has exceeded 80 per cent: 83.5 per cent in 1970, 88 per cent in 1975 and 84.8 per cent in 1981. See Japan. Statistics Bureau, Prime Minister's Office, *Statistical Handbook of Japan 1983* (Japan: Japan Statistical Association, 1983), p. 43, Table 23.

<sup>2</sup> Foreign and Commonwealth Office, *A Yearbook of the Commonwealth 1983* (London: HMSO, 1983), p. 323.

of the Pearl River, is composed of Hong Kong Island, Kowloon Peninsula, the New Territories and some 236 adjacent islets. It has been a British Colony since 1841. Like Singapore, Hong Kong has no natural resources, and the land area is small. In addition, the total land area suitable for agricultural use or occupation does not exceed 20 per cent.<sup>3</sup>

All the three societies possess the characteristics of islands. With strictly limited natural resources, they have to import food and also raw materials for industries. However the lack of natural resources does not prevent them from making economic progress. The economy of all three has indeed flourished during the last two decades.

Japan's economic miracle began in the early sixties when industrial production suddenly increased enormously.<sup>4</sup> Since 1965, Japan has joined the exclusive US\$100 billion-GNP nations,<sup>5</sup> and it began to accumulate a trade surplus.<sup>6</sup> During the decade of the 1960s, the annual growth in GNP averaged 10 per cent.<sup>7</sup> Over the whole period of 1945-1976, the economy increased 55-fold.<sup>8</sup> Since 1977, the growth rate of the economy has been above that of the Western European countries and the U.S.A.<sup>9</sup> In 1980, Japan's GNP stood at US\$1,035.8 billion - 40 per cent of that of the United States'. In 1981, its GNP constituted about 10 per cent of the world GNP, ranking second in the free world, next to the U.S.A., and ahead of the Western European countries.<sup>10</sup> Moreover, by the 1970s, the sales of Japanese

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<sup>3</sup> David Podmore, "The Population of Hong Kong" in Keith Hopkins, ed., *Hong Kong: The Industrial Colony* (Hong Kong: Oxford University Press, 1971), p. 21. In fact, the proportion of land used for farming was only 9.2 per cent in 1981. See *Hong Kong 1982: A Review of 1981* (Hong Kong: Government Printer, 1981), p. 67.

<sup>4</sup> Chalmers Johnson, *MITI and the Japanese Miracle* (Stanford: Stanford University Press, 1982), p. 3.

<sup>5</sup> Burks, *op. cit.*, p. 171.

<sup>6</sup> Kiyoshi Kojima, *Japan and a New World Economic Order* (London: Croom Helm Ltd., 1977), p. 13.

<sup>7</sup> Andrea Boltho, *Japan: An Economic Survey* (London: Oxford University Press, 1975), p. 8.

<sup>8</sup> Johnson, *op. cit.*, p. 6.

<sup>9</sup> Japan. Statistics Bureau, *op. cit.*, p. 28, Table 13.

<sup>10</sup> *Statistical Survey of Japan's Economy, 1982* (Japan: Economic and Foreign Affairs Research Association, 1982), p. 73, Table 64. See also Japan. Economic Planning Agency, *Economic Outlook:*

industrial products began to outstrip the European and American products in a wide spectrum, such as radios, tape recorders, hi-fi equipment, pianos, cameras, motorcycles, cars and ships. Japanese technology has improved so rapidly that the United States is now engaged in large joint research projects with Japan.<sup>11</sup>

Since full independence, Singapore's economic growth and industrial development in the last two decades have been more rapid than that of any other Southeast Asian country.<sup>12</sup> Although it cannot be compared to Japan's GNP in amount, Singapore's GNP achieved a high annual growth rate of 12.2 per cent during the period 1960-1979.<sup>13</sup> In 1981, its GNP rose to US\$12.57 billion - a 15.5 per cent increase over 1980.<sup>14</sup> With deep water and a sheltered harbour, Singapore has become the fourth busiest port in the world in terms of tonnage handled. It is also the communication centre of Southeast Asia.<sup>15</sup> Singapore has successfully developed various types of industry; and it is now the third largest oil refining centre in the world.<sup>16</sup> In addition, textiles, electronics and shipbuilding industries have expanded rapidly; and it provides excellent facilities for ship repairing and refuelling.<sup>17</sup>

Hong Kong has also experienced similar economic progress. Even in the world recession, Hong Kong has been able to maintain an average annual growth rate of 10 per cent in GDP during the last two decades.<sup>18</sup> Entering the eighties, the Governor has expressed his pleasure at a growth rate of 10 per cent in real terms

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*Japan 1983* (Japan: Economic Planning Association, 1983), p. 27.

<sup>11</sup> Ezra F. Vogel, *Japan as Number One: Lesson for America* (Cambridge: Harvard University Press, 1979), pp. 10-12.

<sup>12</sup> Robert Cowen and Martin McLean, eds., *International Handbook of Education Systems*, Vol. 3 (Chichester: John Wiley and Sons Ltd., 1984), p. 455.

<sup>13</sup> Peter S. J. Chen, "Singapore's Development Strategies: A Model for Rapid Growth" in Peter S. J. Chen, ed., *Singapore: Development Policies and Trends* (Singapore: Oxford University Press, 1983), p. 2.

<sup>14</sup> Foreign and Commonwealth Office, *op. cit.*

<sup>15</sup> Cowen and McLean, eds., *op. cit.*, p. 456.

<sup>16</sup> Foreign and Commonwealth Office, *op. cit.*, p. 323.

<sup>17</sup> Cowen and McLean, eds., *op. cit.*, p. 458.

<sup>18</sup> A. J. Youngson, *Hong Kong: Economic Growth and Policy* (Hong Kong: Oxford University Press, 1982), pp. 7-9.

in 1980 as in the previous years.<sup>19</sup> With favourable conditions which include an ideal harbour, Hong Kong has become a leading international manufacturing and commercial centre.<sup>20</sup> With rapid development of both heavy and light industries, its total value of exports far exceeded those of any other developing country by the late sixties.<sup>21</sup> Moreover, Hong Kong is one of the world's leading exporter of garments; it exports more watches than Switzerland; it is the world's largest supplier of toys; and it has the world's third largest container terminal in terms of through-put.<sup>22</sup>

The economic miracles of Japan, Singapore and Hong Kong not only turned these islands into economic wonderlands, but also enabled them to be studied as models of rapid economic development.

## 2. Demographic Characteristics

The population of Japan, with 117 million in 1980, is the seventh largest in the world. Its population density is among the highest in the world also. Its overall population density is 314 persons per square kilometre and the density of Tokyo is as high as 8,349 persons per square kilometre.<sup>23</sup>

With 2,413,900 people on an area of 618.7 square kilometres, Singapore's population is small as compared to Japan's, but the overall population density is much higher - 3,907 per square kilometre.<sup>24</sup> Actually, early in 1970, the urban population

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<sup>19</sup> The Governor, Sir Murray MacLehose's address at the Opening Session of the Legislative Council on 7th October 1981, p. 5.

<sup>20</sup> *Hong Kong 1982: A Review of 1981*, p. 19.

<sup>21</sup> See United Nations, *Monthly Bulletin of Statistics, 1970*. Cited by Keith Hopkins, "Preface" to *Hong Kong: The Industrial Colony*, p. xvi.

<sup>22</sup> *Hong Kong 1982: A Review of 1981*, pp. 19-22. See also Graham Jenkins, "People - Hong Kong's Greatest Asset" in *ibid.*, p. 5.

<sup>23</sup> Tadashi Fukutake, *Japanese Society Today*, second edition (Japan: University of Tokyo Press, 1981), p. 15. See also John Paxton, ed., *The Statesman's Yearbook 1982-1983* (London and Basingstoke: The Macmillan Press, 1982), p. 744.

<sup>24</sup> The population mentioned is based on the 1980 census figure. See *Singapore '81* (Information Division, Ministry of Culture, 1981), p. 206.

density reached 22,394 per square kilometre.<sup>25</sup> With an area of only 1,061 square kilometres, Hong Kong's population density is the highest of the three. Its overall density was 4,760 per square kilometre and its urban density was 28,479 per square kilometre, according to the 1981 census. The most densely populated district, Sham Shui Po, even reached a density of 165,445 per square kilometre.<sup>26</sup>

As a result of population control, the population growth rate has been low in Japan and Singapore. The annual growth rate of Japan has been steady at about 1 per cent over the last two decades. In Singapore, the annual rate of growth was as high as 4.4 per cent in the first decade of the post-war period. It then fell to 2.8 per cent in the sixties and to 1.5 per cent in the seventies. It is projected that the population growth will remain at about 1 per cent in the eighties.<sup>27</sup> Hong Kong's growth is an exceptional case. Due to the continual influx of refugees, its population increased by about one million in each decade from the 1940s to the 1970s, with an average annual rate of population growth of 2.4 per cent. The future prospect of growth will depend on the inflow of immigrants.<sup>28</sup> Fortunately, the birth rate has been kept low.<sup>29</sup>

The population of the three societies is still young.<sup>30</sup> Japan's working age population, i.e. the 15-64 age group, increased to 63.5 per cent of the total popu-

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<sup>25</sup> Cheng Siok Hwa, "Demographic Trends" in Chen, ed., *op. cit.*, p. 67, Table, 3.2.

<sup>26</sup> *Hong Kong 1982: A Review of 1981*, p. 227.

<sup>27</sup> Cheng, *op. cit.*, pp. 75-77.

<sup>28</sup> Concerning the population increase, in 1941, the population was 1.6 million; by 1950, it passed the 2 million mark; in 1961, it was up to 3.1 million; in 1971, it increased to 4 million; and in 1981, it grew to 5.2 million. That is to say, the population increased by about one million in each decade. For the exact population figures, see Hong Kong Annual Reports of the corresponding years. For the annual population growth rate, see *Hong Kong 1982: A Review of 1981*, p. 227.

<sup>29</sup> The birth per 1,000 population was 18 in 1979, 17 in 1982 and 16 in 1982. It is clear that the birth rate has been steadily declining. See Hong Kong. Census and Statistics Department, *Hong Kong in Figures*, (Hong Kong, Government Printer, 1983), p. 1.

<sup>30</sup> In Japan, those under age 20 comprised 30 per cent of the total population in 1982. See Japan. Statistics Bureau, *op. cit.*, p. 17. In Hong Kong, those aged under 20 comprised 36 per cent in 1981. See Paxton, ed., *op. cit.*, p. 588. In Singapore, those under 30 years of age comprised 66 per cent in 1970. See Cheng, *op. cit.*, p. 71. There are five times as many citizens under 15 as there are over 65, but it is 2.4 times in Japan. See Robert Woodrow, "The Singaporeans", *Asiaweek*, 7 Sep 1984, 31.

lation in 1980. In Hong Kong, it increased to 69.1 per cent. In Singapore, the age group 15-59 also increased to 63.8 per cent. However, it is anticipated Japan will move steadily towards an aging society. Singapore's population will continue to be a relatively younger one at least until 1990, whereas the situation in Hong Kong is much affected by the composition of the immigrants.<sup>31</sup>

In respect of ethnicity and language, Japan and Hong Kong are essentially homogeneous societies. In 1980, out of the total population of Japan, only 7.08 percent were foreigners of whom the Koreans and the Chinese were the majority. In Hong Kong, according to the 1971 census, 98 per cent of the population was ethnic Chinese. Westerners comprised only 1 per cent and other non-Chinese Asians 0.5 per cent.<sup>32</sup> Different from the other societies, Singapore it is a multi-ethnic society, with Chinese as the majority. In 1980, Chinese comprised 76.9 per cent of the population, Malays comprised 14.6 per cent, Indians 6.4 per cent and "others" 2.1 per cent.<sup>33</sup>

It is clear that all the three societies have put considerable effort into population control but the population density is still high. It is mainly due to the limitation of space - Singapore and Hong Kong are small, Japan and Hong Kong are mountainous. This high density of population must have certain implications for living and education. Moreover, education must be one of the main issues of these societies where the population is young. Singapore will face certain difficulties in educating people of different cultures whereas Hong Kong has to face difficulties in educating the incoming young refugees.

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<sup>31</sup> For the projection of population in Singapore, see Appendix Table 1 in Chen, ed., *op. cit.*, p. 362 and Cheng, *op. cit.*, p. 70. For Japan's figures, see Robert E. Cole, "Changing Labour Force Characteristics and Their Impact on Japanese Industrial Relations" in Lewis Austin, ed., *Japan: The Paradox of Progress* (New Haven and London: Yale University Press, 1976), pp. 168.

<sup>32</sup> John Gibbons, "The Issue of the Language of Instruction in the Lower Forms of Hong Kong Secondary Schools", *Journal of Multilingual and Multicultural Development*, 3(2), 1982, 117.

<sup>33</sup> Appendix Table 1 in Chen, ed., *op. cit.*, p. 362.

### 3. Employment

All the three societies have high labour force participation rates, with Hong Kong at the top. In 1981, the participation rate of the working age population in Hong Kong was 70.9 per cent, whereas it was 68.1 per cent in Japan and 64.1 per cent in Singapore.<sup>34</sup> All three have effectively full employment.<sup>35</sup> Moreover, all of them claim to have labour shortages. The existence of labour shortages has thereby led to increasing emphasis on capital intensive industries.<sup>36</sup>

Manufacturing, commerce and services are three major sectors of employment. These three sectors comprise roughly equal parts of the labour force in Japan: 24.7 per cent in the manufacturing sector, 22.5 per cent in the commerce sector and 25.1 per cent in the services sector.<sup>37</sup> The manufacturing sector has the largest share of the labour force in Hong Kong and Singapore, comprising 42 per cent and 30 per cent of the total respectively. The commerce sector ranks second, comprising 25 per cent and 11 per cent respectively. The services sector comprised 16 per cent in Hong Kong and 10 per cent in Singapore.<sup>38</sup> On the other hand, there has been a rapid growth of white-collar occupations at the expense of blue-collar occupations. More and more school-leavers want to enter the white-collar sectors, even though the competition is keen.<sup>39</sup>

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<sup>34</sup> Jenkins, *op. cit.*, p. 2.

<sup>35</sup> Japan has the lowest unemployment rate. The rate was 2.3 in Japan in 1982, 3.0 in Singapore in 1980 and 4.1 in Hong Kong in 1983. See Japan. Statistics Bureau, *op. cit.*, p. 106, Table 64; *Singapore '81*, pp. 212-213; and Hong Kong. Census and Statistics Department, *op. cit.*

<sup>36</sup> For example, in Singapore, 2,784 job vacancies were noted by the Ministry of Labour. See Woodrow, *op. cit.*, p. 32. Hong Kong's reported vacancies in the manufacturing sectors increased by 73.2 per cent between 1977 and 1978 and 37.7 per cent between 1982 and 1983. See Hong Kong. Census and Statistics Department, *op. cit.*, p. 2. For other details, see Hiroshi Huzama, "Historical Changes in the Life Styles of Industrial Workers" in Hugh Patrick, ed., *Japanese Industrialization and Its Social Consequences* (Berkeley and Los Angeles: University of California Press, 1976), p. 47 and Theodore Geiger and Francis M. Geiger, *The Development Progress of Hong Kong and Singapore* (London and Basingstoke: Macmillan, 1975), pp. 174 & 183.

<sup>37</sup> *Statistical Survey of Japan's Economy, 1982*, p. 7, Table 5.

<sup>38</sup> All are 1980 figures. For the Hong Kong figures, see Youngson, *op. cit.*, p. 17. For Singapore's figures, see John Paxton, ed., *op. cit.*, p. 1064 and *Singapore '81, op. cit.*, p. 213.

<sup>39</sup> Robert Cole suggests that the expansion of white-collar occupations characterizes Japan as an "information society". See Cole, *op. cit.*, pp. 178-179. Iain Buchanan also points out the existence of the "white collar complex" in Singapore. See Iain Buchanan, *Singapore in Southeast Asia: An*

Workers of the three societies are well-known to be hard-working. In Hong Kong, there is no legal restriction on working hours for men. Many of them have to work for eight or nine hours a day, plus overtime. In 1968, Hong Kong workers had the longest working day and the longest working week of city dwellers in Southeast Asia.<sup>40</sup> In Singapore, there is legislation which prohibits manual workers from working more than forty-four hours a week and eight hours a day.<sup>41</sup> In Japan, over 70 per cent of workers worked forty-two hours a week in 1981.<sup>42</sup> Their official working hours are shorter but it is a common practice that the Japanese continue their work or stay with their colleagues long after office hours.

As compared to the average working hours of forty hours a week in the United States, these Eastern people are certainly hard-working.<sup>43</sup> One probable explanation is that the family business is still common in the three societies. Hence, "if (the employer) makes his employees work 9 to 10 hours a day, it is because he himself works just as much if not more and expects his own children to do no less".<sup>44</sup> Also, the Japanese firms, whether large or small, are family-like and paternalistic. They have a strong sense of belonging as a result of the practice of life-time employment. This family atmosphere creates a sense of obligation among workers to contribute their best efforts to improve the prospects of their firms (families), and presumably they will be benefited personally eventually.<sup>45</sup>

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*Economic and Political Appraisal* (London: G. Bell and Sons, 1972). For Hong Kong's situation, see Judith Agassi, "Social Structure and Social Stratification" in I. C. Jarvie, ed., *Hong Kong: A Society in Transition* (London: Routledge and Kegan Paul, 1969), p. 73.

<sup>40</sup> Joe England, *Hong Kong: Britain's Responsibility*, Fabrian Research Series, no. 324 (London: Fabrian Society, 1976), p. 13. However, there is legislation which limits women and young people aged 16-17 to work 8 hours a day and 48 hours a week. See *Hong Kong 1971* (Hong Kong: Government Printer, 1971), p. 55.

<sup>41</sup> *Singapore '81*, p. 39.

<sup>42</sup> Japan. Statistics Bureau, *op. cit.*, p. 108.

<sup>43</sup> Vogel, *op. cit.*, pp. 20-21.

<sup>44</sup> K. S. Lo, "Labour Motivation and Reward", paper presented at IPCCIOS Conference, Hong Kong, 1-5 Oct 1968, cited by Joe England, "International Relation in Hong Kong" in Hopkins, ed., *op. cit.*, p. 232.

<sup>45</sup> Yoshihara Kunio, *Japanese Economic Development: A Short Introduction* (Tokyo: Oxford University Press, 1979), p. 43 and Jenkins, *op. cit.*, p. 4.



The females are becoming more and more economically active in the three societies. Women are welcomed as one of the solutions to the problem of labour shortage. They are considered more dexterous and obedient than men. The textiles, electronics, and plastics industries are especially suited to female labour. However, the key factor lies in the relatively low wage levels of the female workers. Moreover, women are also among the lower ranks of employment and many of them are unskilled workers. Women are keen to engage in work mainly because of the realization of women's economic role in the societies on the one hand and the need to increase their own household incomes on the other.<sup>46</sup>

Those who work in the large firms are most fortunate. This is because large firms employ higher technology and better organization. Moreover, workers in these firms may have better working conditions, higher wages, more regular working hours, better welfare and better prospects of promotion. Conversely, working conditions in small firms are less satisfactory. The above-mentioned advantages in large firms are less common in small firms which are typically family businesses. Nevertheless, although small firms cannot be compared with large firms in respect of the above-mentioned advantages, numerous small firms still exist mainly because they are more flexible in the way they run their business and are more "specialized" in accepting subcontract orders. This implies that a large part of the working population is working in less favourable working conditions despite the general prosperity of the societies.<sup>47</sup>

The above discussion suggests that people in these societies do not have to be

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<sup>46</sup> Joyce K. Kallgren, "Women in Asian Cities, Their Political and Economic Roles: Research Problems and Strategies" in Sylvia A. Chipp and Justin J. Green, eds., *Asian Women in Transition* (University Park and London: The Pennsylvania University Press, 1980), pp. 28-30. See also Hugh Patrick, "An Introductory Overview" in Patrick, ed., *op. cit.*, pp. 10-12; Aline K. Wong, "Women as a Minority Group" in Riaz Hassan, ed., *Singapore: Society in Transition* (Kuala Lumpur: Oxford University Press, 1976), pp. 300-303; Joe England, "Industrial Relations in Hong Kong" in Hopkins, ed., *op. cit.*, pp. 230-236; and Janet W. Salaff, *Working Daughters of Hong Kong: Filial Piety or Power in the Family?* (Cambridge: Cambridge University Press, 1981), p. 20.

<sup>47</sup> See Patrick, *op. cit.*, pp. 7-10; Kunio, *op. cit.*, pp. 36-7; and Geiger and Geiger, *op. cit.*, pp. 102-103 and 203-205.

worried about unemployment. However, they do have to commit themselves to long hours of hard work. For those who work in small family-type firms, working conditions are less favourable. Women have to endure a certain amount of discrimination in work.

#### 4. Standard of Living

As the economies have prospered, so the living standards of the three societies have been rising. All three societies experienced a high growth rate of GNP per capita, with Japan having the highest. Japan's GNP per capita reached US\$7,167 in 1978 and US\$7,729 in 1981. Hence its GNP per capita was just behind those of West Germany and the U.K. in 1981. In 1972, Singapore's GNP per capita was US\$1,366, only about half of Japan's. However, its growth has been rapid - it increased to US\$2,487 in 1975, US\$3,260 in 1978 and then to US\$4,340 in 1980. The gap between the two countries is clearly closing. Hong Kong's GDP per capita was as low as US\$917 in 1971, however its growth was the quickest. Its GDP per capita quadrupled to US\$3,671 in 1978 and further increased to US\$5,424 in 1982, well above Singapore's.<sup>48</sup> The economic advance of Japan is beyond question, but the advance of Hong Kong and Singapore is also impressive. Because of such advance, the Organization of Economic Cooperation and Development (O.E.C.D.) classified Hong Kong and Singapore as two of the ten New Industrializing Countries (NICs).<sup>49</sup> Furthermore, if the annual per capita income of US\$4,000 is the criterion for classifying a society as a "postindustrial society", as suggested by Ardath Burks,

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<sup>48</sup> For figures of the three societies in 1971 and 1972, see Y. W. Sung, "The Extent of the Income Inequality and its Changes" (in Chinese), in Joseph Y. S. Cheng, ed., *Essays on the Economics, Politics, and Society of Hong Kong* (Hong Kong: Chuen Shan Press, 1984), p. 19. For the 1978 figures of Japan and the U.S., the 1975 and 1981 figures of the U.S. and West Germany, and the 1980 figure of the U.K., see Japan. Statistics Bureau, *op. cit.*, p. 27. For Singapore's figures, see Chia Seow Yue, "Singapore - EEC Economic Relations" and Appendix Table 2 in Chen, ed., *op. cit.*, pp. 303 & 362.

<sup>49</sup> The ten Newly Industrializing Countries are Brazil, Greece, Hong Kong, Korea, Mexico, Portugal, Singapore, Spain, Taiwan and Yugoslavia. Moreover, early in 1970, the *Financial Times* regarded Singapore as "the Republic which boasts Southeast Asia's highest living standards and most dynamic economy", *The Financial Times*, 17 Nov 1978.

all three societies have reached that level.<sup>50</sup>

Looking at the composition of private consumption expenditure, all three societies are alike. The proportion of expenditure on food and beverage comprised about 40 per cent in the sixties and it fell to just over 30 per cent in the seventies. Housing comprises the second largest proportion of expenditure - about 20 per cent in Japan and 12 per cent in Singapore and Hong Kong. A decrease in expenditure on food and beverage and an increase in other activities, such as recreation and leisure, is clear evidence that their living standards have improved.<sup>51</sup>

People's material possession in these three societies is worth noting. Japan leads the world in household ownership of television sets (especially colour sets) and cameras. Japan also outstrips the United States in household consumption of video cassette recorders. Moreover, in 1982, 62 per cent of households possessed cars, 42.2 per cent owned air conditioners and 39.9 per cent had micro-wave ovens. Almost every household owns refrigerators and washing machines. Hong Kong provides a similar picture. It has more British Rolls Royce cars per road-mile than anywhere else in the world, and more Mercedes Benz cars in the street than in the average German city. Hong Kong is also the second largest export market of Switzerland for custom-made gold watches and of France for brandy. Moreover, 80 per cent of the households possessed television sets by the end of 1972. In Singapore, the number of radio and television licences issued rose by 121.5 per cent between 1971 and 1981. The number of telephones per 1,000 persons rose from 48 in 1966 to 231 in 1978. Also, the number of cars per 100 households increased from 6 in 1963 to 16 in 1971.<sup>52</sup>

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<sup>50</sup> Burks, *op. cit.*, p. 173.

<sup>51</sup> For Japan's figures, see *Statistical Survey of Japan's Economy, 1982*, p. 69, Table 59. For Singapore's figures, see *Singapore '81*, p. 202. For Hong Kong's figures, see United Nations, *Yearbook of National Accounts Statistics 1980*, vol. 1, Part 1 (New York: United Nations, 1982), pp. 559-560.

<sup>52</sup> See Vogel, *op. cit.*, p. 16; Japan. Statistics Bureau, *op. cit.*, p. 115; Geiger and Geiger, *op. cit.*, pp. 117 & 203; Jenkins, *op. cit.*, p. 6; and Lim Chong Yah, "Singapore's Economic Development: Retrospect and Prospect" in Chen, ed., *op. cit.*, p. 99.

While the general living standards of the societies are improving, there are still large numbers of people living in hardship. In Japan, there is a wide gap between large firms and small firms. In 1960, for instance, workers in plants with less than 100 workers received wages which were only 60 per cent of those in plants with 500 workers or more. By now, over half of the workers in Japan are still working in these lower paid small firms. In Hong Kong, it was reported in 1974 that a family with a monthly income of less than US\$81 was regarded as "poor". If so, poor families comprised about 17 per cent of the society in that year. If a family earning less than US\$122 a month was included in the lower income group, the lower income group comprised 42.4 per cent. The wage rate in Singapore is lower than in Hong Kong and much lower than in Japan. The ECAFE survey in 1972 pointed out that 20.7 per cent of households had monthly incomes below the "poverty line" of US\$49.5. Moreover, it was suggested that workers of all industries with monthly incomes below the subsistence level comprised 22 per cent in 1978. And the ECAFE survey of the year further suggested that 42.1 per cent of the population was of the lower class. Therefore, in Singapore, about 20 per cent of the population are living in poverty and about 40 per cent belong to the lower income group.<sup>53</sup> Fortunately, the wage discrepancies in Japan have been diminishing. The wage rate of Singapore has been rising also, since the adoption of high wage policy in 1979. Nevertheless the 1982 Hong Kong Annual Report recorded stagnation in the index of real average daily wages.<sup>54</sup>

While a large number of people have to face considerable financial difficulties, the "social wage" which can help to alleviate their difficulties is low. Hence, there is a high incidence of saving in Japan. In 1982, the Japanese saved 11.4 per cent of their disposable incomes. The three main reasons cited - provision for disease and emergency, provision for children's education and marriage expenses, and provision for post-retirement life - reflect the lack of social welfare. Osamu Nairai, Deputy Di-

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<sup>53</sup> See Fukutake, *Japanese Society Today*, pp. 84-85 and Geiger and Geiger, *op. cit.*, p. 119, Table V.3. The poverty line of US\$49.5 in Singapore was suggested by Goh Keng Swee, cited by Chan Heng Chee, "The Political System and Political Change" in Hassan, ed., *op. cit.*, pp. 47-8.

<sup>54</sup> *Hong Kong 1983: A Review of 1982*, p. 531.

rector of the Co-ordination Division of the Economic Planning Agency also suggests that the lack of social security, annuity systems and housing- and consumer-credit systems is one of the main causes of the high propensity for saving in Japan. Because of this lack of social welfare, the malaise “new poverty” pervaded Japan in the early 1970s.<sup>55</sup> In Singapore, the amount of money the Government provides is also too little to meet the poor’s financial difficulties. According to the Public Assistance Scheme of 1976, the allowance rate was US\$13 for the head of the household, US\$9 for his spouse, US\$5.5 each dependent, and the maximum allowance per household was US\$47.4. Considering that US\$111 per month was the poverty line of the year, the allowance of US\$47.4 was far below the subsistence level.<sup>56</sup> In Hong Kong, the social welfare provided is minimal. Most of those who receive public assistance have only about US\$1 a day for their living expenses. Moreover, unemployment insurance has not been introduced, the International Labour Organization Convention (No.102) on Social Security, which calls for medical care and protection of workers from suspension of earnings for various reasons, has not been adopted. Neither is legislation on wages, working hours and labour conditions enforced. Perhaps what the 1975 report states about Hong Kong in respect of social welfare can also apply to all the three societies:

Hong Kong is not a welfare state. People are expected to stand on their own feet, a principle which accords with their proud and independent spirit.<sup>57</sup>

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<sup>55</sup> For the saving rate and the survey of reasons for saving, see Japan. Statistics Bureau, *op. cit.*, p. 115. For the factors of high propensity of saving, see Osamu Nairai, *Structural Changes in Japan’s Economy* (Japan: Foreign Press Centre, 1983), p. 13. For the concept of “new poverty”, see Patrick, *op. cit.*, p. 15.

<sup>56</sup> Noeleen Heyzer, “International Production and Social Change: An Analysis of the State, Employment, and Trade Unions in Singapore” in Hassan, ed., *op. cit.*, p. 119.

<sup>57</sup> Cited by England, *Hong Kong: Britain’s Responsibility*, p. 16. See also W. S. Chow, “Is Hong Kong on the road to Welfare State?” (in Chinese) in Joseph Cheng, ed., *op. cit.*, p. 290 and Salaff, *op. cit.*, p. 24.

## B. The Cultural Environment

### 1. Traditional Social Values and Success

As nearly all of Hong Kong's population and three-quarters of Singapore's are ethnic Chinese, it is not difficult to understand that Chinese culture dominates the two societies. Traditional Chinese society was composed of four estates of people: scholars, peasants, artisans and merchants.<sup>58</sup> Among these four estates, scholars were of the highest prestige. As a maxim says, "All other things are of lower classes, only to study is of high class."<sup>59</sup> Although merchants were usually rich people, they could not gain high status in the society because people perceived that their wealth was accumulated at the expense of others. Moreover, to be wealthy was not the goal advocated by the Chinese saints of the main schools of thought, such as Confucius and Mencius of the Confucian School, Laozi and Zhuangzi of the Taoist School, and Mozi, leader of the Mohists. Simplicity of life was the ideal and was also a virtue. To raise their status, merchants usually invited scholars to stay at their homes or tried to establish close relationships with them. The scholar, as an ideal model of man, was characterized by great learning (which is already implied by the term), high moral sense and political ability. Of these, what really enabled them to gain respect was their moral and political ability. To be a moral man, a political man at the same time a learned man was the ultimate goal of achievement in traditional Chinese culture.

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<sup>58</sup> Guanzi says, "The scholars, peasants, artisans and merchants, these four estates types of people, are the bedrock of the state." See W. Allyn Rickett, *Guanzi: Political, Economic, and Philosophical Essays from Early China* (Princeton, N.J.: Princeton University Press, 1985), p. 325. The term estate is used instead of class mainly because the difference between them is not a "class" difference but a functional difference. This term is also adopted in describing the structure of society in Japan. For further discussion of the connotations of the term, see Jean-Pierre Lehmann, *The Roots of Modern Japan* (London and Basingtoke: The Macmillan Press, 1982), p. 64.

<sup>59</sup> Chen Qitian, "From Traditional Education to Modern Education" (in Chinese) in Bernard Luk, ed., *The Development of Education in the Modern Age* (Hong Kong: Huafeng Press, 1983), p. 3.

To be a moral man was the most important of all. It was especially important for the perfect gentleman.<sup>60</sup> A perfect gentleman was characterized by righteousness, observance of rites and faithfulness.<sup>61</sup> He should always think of *dao* - the right way or the Principle,<sup>62</sup> and he should always carry out what he had promised.<sup>63</sup> As a scholar, he should aim at *dao* and disregard bodily needs such as clothing and food.<sup>64</sup> Loyalty, filial piety and friendliness should be fundamental virtues.<sup>65</sup> Sound morals should of course be the sign of a mature man. He should be capable of mastering the virtues such as benevolence, righteousness and rites.<sup>66</sup> As morality was the most important element of a human being, everyone should strive to be a moral man. When applied to education, the most important function of education was to cultivate moral men: to help people identify good and righteousness, to practise what was good and just, and to hold fast to it. Mencius said, "Learning is nothing else but the rediscovery of one's virtuous conscience, which has gone astray."<sup>67</sup>

As written in the *The Analects*, a man should discipline himself first, after that he could regulate his family, then govern the state and finally lead the world into

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<sup>60</sup> The term perfect gentleman is also expressed as a scholar or mature person in other texts of Confucian writings. Literally, it means "prince" or "son of a ruler" and was developed by Confucius to signify the ideal such a person should strive for.

<sup>61</sup> Confucius says, "The perfect gentleman considers righteousness to be essential. He performs it according to the rules of propriety. He brings it forth in humility. He completes it with sincerity. This is indeed a perfect gentleman." See *The Analects*. Collected in James Legge, trans., *The Four Books* (Shanghai: The Chinese Book Company, 1930), p. 227.

<sup>62</sup> Confucius says, "The object of the perfect gentleman is Dao (truth). Food is not his object." See *ibid.*, p. 232. Confucius also says, "He (the perfect gentleman) who aims to be a man of complete virtue in his food does not seek to gratify his appetite, nor in his dwelling place does he seek the appliances of ease; he is earnest in what he is doing, and careful in his speech he frequents the company of men of principle that he may be rectified: - such a person may be said to indeed to love to learn." See *The Analects*, in Legge, *op. cit.*, p. 11.

<sup>63</sup> Confucius says, "He acts before he speaks, and afterwards speaks according to his actions." See *The Analects*, in *ibid.*, p. 18..

<sup>64</sup> Confucius says, "A scholar, whose mind is set on *dao*, and who is ashamed of bad clothes and bad food, is not fit to be discoursed with." See *The Analects*, in *ibid.*, p. 42.

<sup>65</sup> Zigong asked, saying, "What qualities must a man possess to entitle him to be called an officer?" Confucius said, "He who in his conduct of himself maintains a sense of shame, and when sent to any quarter will not disgrace his prince's commission, deserves to be called an officer." See *The Analects*, in *ibid.*, p. 186.

<sup>66</sup> Confucius says, "...benevolence, righteousness, rites and music are the practices of the mature man." See "Bian Wu", *Shuo Yuan 18*. Collected in Meng Xian Cheng et al., ed., *Sources of Ancient Chinese Educational History* (in Chinese) (Beijing: Renmin Press, 1961), p. 75.

<sup>67</sup> Mencius, cf. Legges, *op. cit.*, p. 879.

peace. These were the steps and also the prerequisites to pass from one stage to another. To be a moral man was splendid but not enough. A man also should try to influence the whole world and lead it into peace - into an earthly paradise. He needs to be an ideal person to take up this role because his behaviour should be good and he should be the exemplar of his people. People would learn from him and listen to him with eagerness.<sup>68</sup> Hence, every learned moral man should strive to obtain a governing position so that people would benefit from his benevolence and his moral example. This was the ideal goal of every traditional learned person. When Confucius once asked his close disciples their goals, all expressed their wish to become governors or officials if possible, except one only.<sup>69</sup> However the opportunity to gain a governing post was very limited. What should they do if they could not get one? Mencius gave the following advice:

When he obtains his desire for office, to practice his principles for the good of the people; and when that desire is disappointed, to practice them alone.<sup>70</sup>

In other words, whenever there was a chance, they should grasp it, but when there was not a chance, they should continue to wait.

Mencius distinguished two classes of people in a society - the governors and the governed. The governors were those who worked as thinkers and the governed were those who worked as labourers.<sup>71</sup> This implied that the political men were the learned men. Knowledge was important, and people should try to gain wide knowledge, and always try to scrutinize what they had learned, reflect on it and

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<sup>68</sup> Confucius says, "When a prince's personal conduct is correct, his government is effective without the issuing of orders. If his personal conduct is not correct, he may issue orders, but they will not be followed." See *The Analects*, in Legges, *op. cit.*, p. 178.

<sup>69</sup> *The Analects*, in *ibid.*, p. 153.

<sup>70</sup> *Mencius*, in *ibid.*, p. 651. On another occasion, Mencius said, "If poor, they attended to their own virtue in solitude; if advanced to dignity, they made the whole empire virtuous as well." See *Mencius*, in *ibid.*, p. 940.

<sup>71</sup> Mencius says, "There is a saying, 'Some labour with their minds, and some labour with their strength. Those who labour with their minds govern others; those who labour with their strength are governed by others. Those who are governed by others support them; those who govern others are supported by them.' This is a principle universally recognized." See *Mencius*, in *ibid.*, p. 627.



identify what was right, and then carry it out.<sup>72</sup> Although people's abilities varied, they could all gain knowledge if they tried.<sup>73</sup>

Although knowledge was important, it was always preceded by morality whenever the two were compared. Among the four subjects which Confucius taught - Literature, Behaviour, Loyalty and Faithfulness - only one was concerned with knowledge; the other three were subjects of moral education. Confucius also stated clearly that he was more concerned with morality than knowledge:

A youth, when at home, should be filial, and abroad, respectful to his elders. He should be earnest and truthful. He should overflow in love to all, and cultivate the friendship of the good. When he has time and opportunity, after the performance of these things, he should employ them in literary (or polite) studies.<sup>74</sup>

The traditional goal of Chinese people was a moral-political one. Although to be learned was also important, it had special relevance to the governors only. Hence the traditional goal in education was also a moral-political one - to train virtuous governors.<sup>75</sup>

Because of the moral-political emphasis in achievement and education, people's attitude towards education had certain characteristics. To become a political man was not easy because opportunity was rare. To be a learned man and a moral man was in practice the aim of the general populace. However, if the families were poor, educating the children meant a reduction in family income and an increase in expenditure at the same time. Education was neither free nor compulsory. Some

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<sup>72</sup> Confucius says, "To this attainment there are requisite the extensive study of what is good, accurate inquiry about it, careful reflection on it, the clear discrimination of it, and the earnest practice of it." See *The Mean*, in *ibid.*, p. 395.

<sup>73</sup> Confucius says, "Some are born with the knowledge..., some know them by study; and some acquire the knowledge after a painful feeling of their ignorance. But the knowledge being possessed, it comes to the same thing." See *The Mean*, in *ibid.*, p. 387.

<sup>74</sup> *The Analects*, in *ibid.*, p. 5.

<sup>75</sup> "In all these (Confucian) writings, whether of the ancient period, or those of the Neo-Confucians of the Sung, the aim of education was clearly stated as moral-political." R. F. Price, *Education in Communist China* (London: Routledge and Kegan Paul, 1970), p. 59.

villages might establish some sort of schooling at the local temples but many had to pay for a teacher themselves. Usually, many families joined together to employ a teacher but the economic burden was still heavy. Therefore, most children of the lower socio-economic classes could not aspire to sit public examinations.

Nevertheless, there was a way out if they could not become a political man or a learned man. They could become a moral man - by being a self-disciplined and hardworking person with good characteristics such as loyalty, filial piety and friendliness. To have high moral sense and good behaviour could help them gain respect and dignity. Thus tension among the "school-failures" was reduced. They could pursue one of the three goals - the moral one. This could be achieved by every one and there were no public examinations to measure it. To become a moral man could make a person proud of himself. In a famous novel of the Ming Dynasty, *Shui Hu Chuen*, the unlearned men who were active in helping people were praised, whereas those who were learned or rich but were without good behaviour were denounced.

This attitude towards success and education had both advantages and disadvantages. On the one hand, people were not disturbed by failure in academic achievement. However, this attitude also reduced their incentive to raise their educational levels. Over-emphasis on personal qualities rather than expertise tended to lead many scholars to under-estimate development in technical ability.<sup>76</sup> Thus technological advancement in the country was for centuries slow.

Japan is a society different from Hong Kong and Singapore as nearly all of the population is ethnically Japanese and it has its own Japanese culture. However, the Confucian past does have considerable influence on the society.<sup>77</sup> The society in the

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<sup>76</sup> Majorie Topley, "Hong Kong" in Lambert and Hoselitz, eds., *The Role of Savings and Wealth in South East Asia* (Paris: Unesco, 1963), p. 128.

<sup>77</sup> How much Confucianism has influenced Japan is not agreed among scholars, but the influence is conceded. For example, Robert J. Smith alleges that "the Confucian past casts a very long shadow over contemporary Japanese society." However, Eiichiro Ishida thinks that the influence was

Tokugawa period was also divided into four estates - samurai, peasants, artisans and merchants. The difference was that samurai were on top of the four estates instead of scholars. Samurai were different from scholars in three respects. First, a samurai's status was defined at birth whilst a scholar's might not be. To keep the distinct position of samurai in the society, inter-marriage between samurai and people of other estates was forbidden. Secondly, not all samurai were scholars. In fact, they were warriors (actually privileged warriors), and they were the only people allowed to carry swords. Hence warriors instead of scholars were the most respected people in the society. And scholars did not even appear in these four estates. Later, more and more samurai were educated (under Confucian scholars) mainly because the society was peaceful and they liked to spend their leisure time usefully in improving themselves.<sup>78</sup> Thirdly, although merchants held the lowest status and even a despised position in the society (because of the influence of Confucianism), some samurai entered business to improve their financial situation or sought help from merchants when they had financial difficulties. It was because of this that the distinction between samurai and merchant in the caste-frozen society became blurred. However such a case was rare in China. Scholars might help merchants or be associated with merchants but they seldom ran businesses as merchants.<sup>79</sup>

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only confined to the educated samurai despite his acknowledgement that the Buddhist and Chinese influences on Japan were like the Christian and Graeco-Roman influences on Western civilization. Nyozezan Hasegawa agrees about Japan's inheritance of Chinese civilization, but he suggests that there is a distinctiveness of Japanese culture that is not Chinese. See Robert J. Smith, *Japanese Society: Tradition, Self and the Social Order* (Cambridge: Cambridge University Press, 1983), p. 37; Eiichiro Ishida, "Nature of the problem of Japanese culture" in Robert J. Smith and Richard K. Beardsley, eds., *Japanese Culture: Its Development and Characteristics* (London: Methuen and Company Ltd., 1963), p. 3 and Eiichiro Ishida, *Japanese Culture: A Study of Origin and Characteristics*, trans. Teruko Kachi (Tokyo University of Tokyo Press, 1974), pp. 101-102; and Nyozezan Hasegawa, *Educational and Cultural Background of the Japanese People* (Tokyo: Kobusai Bunka Shinkai, 1936), p. 5.

<sup>78</sup> Lehmann, *op. cit.*, pp. 81 & 116-117.

<sup>79</sup> The term "caste" is suggested by Harumi Befu referring to its "class" frozen characteristic. See Harumi Befu, *Japan: An Anthropological Introduction* (San Francisco: Chandler Publishing Company, 1971), p. 121. Due to the limitation of stipends and the disposition of the Edo samurai to lead extravagant lives, the samurai faced financial difficulties. These financial difficulties forced them to join in merchant activities and even to rely on the financial help of merchants. Thus more and more *daimyo* and samurai were in debt to merchants. See *ibid.*, p. 122 and Lehmann, *op. cit.*, pp. 70-71 & 85.

Although warriors had the highest prestige in Japanese society, education was valued. Formal education was regarded as important for the ethic of learning was part of the official ideology of samurai. Moreover, with the influence of Confucianism, and with the need for giving moral teaching to the public and recruiting more able and better qualified administrators, formal education became increasingly significant in the society. A meritocracy gradually emerged as official positions were increasingly open to talented people. Conversely, the administrative positions of the Qing Government were increasingly confined to self-perpetuating elites.<sup>80</sup>

An ideal samurai was one who could lead a life of austerity and abstain from promiscuity.<sup>81</sup> He should know martial arts as well as military skills. The martial arts showed the delicacy of Japanese sensibility, which was to cultivate art in everyday life. It also reflected the ideal Japanese temperament - moderation, plainness and restraint.<sup>82</sup> He should practise loyalty (*chu*) and benevolence (*jin*), for these two virtues were the very essence of the moral code of *bushido* - the Way of Samurai. Benevolence was essential to the society, for a virtuous ruler could cure all social ills. Loyalty was another indispensable virtue. All samurai swore to be loyal to the *daimyo* (feudal lord). The *daimyo* in turn showed benevolence to them. This relationship between *daimyo* and samurai was a moral rather than a contractual one; and it also applied to other relationships in society, such as husband and wife, master and apprentice as well as landlord and tenant.<sup>83</sup> When loyalty was applied to the relationship between children and parents, it was filial piety (*ko*). *Chu* and *ko* were treated so seriously in Japan that they should be observed unconditionally. Furthermore, every person in Japan had a limitless repaying obligation (*gimu*) for whatever grace or benevolent debt (*on*) he had received from others, especially his superiors including the emperor, parents, lord and teacher.<sup>84</sup>

<sup>80</sup> Lehmann, *op. cit.*, pp. 115-117.

<sup>81</sup> *Ibid.*, p. 85.

<sup>82</sup> This type of sensibility which treats everyday life activities as an art applies to many of everyday ceremonies; the tea-ceremony is a good example.

<sup>83</sup> Lehmann, *op. cit.*, pp. 83-85.

<sup>84</sup> Ruth Benedict, *The Chrysanthemum and the Sword* (London: Routledge and Kegan Paul, 1967), pp. 81-83.

In the official schools, among the various subjects taught, martial arts and ethics were of dominant significance.<sup>85</sup> Students were taught martial arts, not only military skills. They learned to develop the vertical and personal relationship with their master, which was a foretaste of the daimyo-samurai relationship. They learned to cultivate the most significant virtues such as *chu* and *ko*.<sup>86</sup> Thus, as in China, the main orientation of traditional education was a moral-political one.<sup>87</sup>

As in China, "to discipline (or cultivate) oneself, then regulate the family and then govern the state" were the stages of development in Japan also.<sup>88</sup> The opportunity to govern was rare; it was also the privilege of either the ruling families or of the talented elites. What every one could pursue and achieve was self-cultivation, a virtue much emphasized in the society.<sup>89</sup> To cultivate oneself, one should foster one's moral sense (such as loyalty, filial piety and benevolence), one's Japanese temperament (such as moderation, plainness and restraint), and one's sensibility in life (to cultivate art in everyday life).<sup>90</sup> The emphasis of self-cultivation in these areas was well reflected in the Imperial Rescript on Education of 1890:

Our imperial Ancestors have founded our Empire on a basis broad and everlasting and have deeply and firmly implanted virtue; Our subjects ever united in loyalty and filial piety have from generation to generation illustrated the beauty thereof. This is the glory of the fundamental character of Our Empire, and herein also lies the source of Our education. Ye, Our subjects, be filial to your parents, affectionate to your brothers and sisters; as husbands and wives be harmonious, as friends true; bear yourselves in modesty and moderation; extend your benevolence to all; pursue learning and cultivate arts, and thereby develop intellectual faculties and

<sup>85</sup> The other subjects were Chinese classics, calligraphy and arithmetic. See Lehmann, *op. cit.*, p. 198.

<sup>86</sup> *Ibid.*, pp. 118-119.

<sup>87</sup> In addition to learning moral virtues, students learnt how to be a good governor as well. See Ronald Dore, *Education in Tokugawa Japan* (London: Routledge and Kegan Paul Ltd., 1965), p. 291.

<sup>88</sup> Smith, *op. cit.*, pp. 31 & 129.

<sup>89</sup> *Ibid.*, pp. 11 & 129.

<sup>90</sup> "The definition of "art" is far wider in Japan than in the West. Art is not separate from "ordinary life" but is an integral part of it." Besides *Kendo* and tea-ceremony as arts created out of everyday activities, crafts such as ceramics, lacquer-work and sword-fittings can hardly be distinguished from art. See Richard Tames, *The Japan Handbook: A Guide for Teachers* (Kent: Paul Norbury Publication, 1978), p. 107.

perfect moral powers; furthermore advance public good and promote common interest; always respect the Constitution and observe the laws; should emergency arise, offer yourselves courageously to the State; and thus guard and maintain the prosperity of Our Imperial Throne coeval with heaven and earth. So shall ye not only be Our good faithful subjects, but render illustrious the best traditions of your forefathers.<sup>91</sup>

Although Japan laid much emphasis on the moral goal, such emphasis did not prevent the country from technological progress as it did in China. There may be two reasons for this. First, formal education was emphasized and literacy was high in Japan. By the end of the Tokugawa period, about 40 per cent of boys and 20 per cent of girls had received some amount of formal education. As compared to many developing countries today and even to the more advanced European states of the period, Japan had an exceedingly high rate of literacy.<sup>92</sup> It is generally accepted that extensive literacy and education promote successful development.<sup>93</sup> Secondly, the mentality of Chinese scholars and Japanese samurai was different. Due to the strong influence of Sung Confucianism, *dao* was valued but technology was devalued among Chinese scholars. However the meritocratic samurai were pragmatists rather than ideologists.<sup>94</sup> As Japan was a society ready to accept outside influence (whilst China was not), with this pragmatic attitude, it was not difficult for them to accept the introduction of technology which seemed likely to improve their society.

Thus, Japan had adopted what was good for the society - the moral orientation of the East and the technological orientation of the West - and adapted them in a way suitable to that society. In the society, every one learned to cultivate himself, learned to fulfil his life-obligation and to act as was expected.<sup>95</sup> These were what

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<sup>91</sup> Ryusaku Tsunoda et al., ed., *Sources of Japanese Tradition*, Vol. 2 (New York: Columbia University Press, 1958), pp. 139-140.

<sup>92</sup> Dore, *op. cit.*, p. 291.

<sup>93</sup> Lehmann, *op. cit.*, p. 118.

<sup>94</sup> Befu, *op. cit.*, p. 184.

<sup>95</sup> In Japan, social expectation has a strong influence on performance in life as well. "Those who do respect themselves (*jicho*) chart their course, not between 'good' and 'evil', but between 'expected man' and 'unexpected man', and sink their own personal demands in the collective 'expectation'." Hence, to act as is expected is another task that every Japanese has to achieve in his life. See Benedict, *op. cit.*, p. 205.

every one could achieve and aim to achieve. The more ambitious and capable ones would certainly also equip themselves academically to climb the educational and social ladder.

## 2. The Patterns of Family Life

The traditional Chinese and Japanese families share some characteristics traditional throughout Asia.<sup>96</sup> They were in general extended families, with several generations living under one roof.<sup>97</sup> Usually they preferred to have at least three generations - grandparents, parents and children - living under the same roof. Sometimes there could even be four to five generations living together, although this was relatively rare.<sup>98</sup>

Within the family, in both China and Japan, the father was the authority, and the family elders were to be respected. Family relationships in China were governed by the Five Social Dyads, by which the son should be filial to the father and the younger brothers should give respect to the elder brothers. The father in turn should be kind and the elder brother should be friendly.<sup>99</sup> Filial piety (*xiao*)

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<sup>96</sup> As Chinese culture dominates Hong Kong and Singapore, the discussions concerning the traditional family patterns of the two societies below will focus on the Chinese family pattern. For the general characteristics of traditional Asian families (which of course include Malay and Indian families), see Robert J. Lazar, "Asian Family and Society - a Theoretical Overview" in Man Singh Das and Panos D. Bordis, eds., *The Family in Asia* (London: George Allen & Unwin, 1979), pp. 6-9. For the similarities between Malay and Chinese families, see Tham Seong Chee, "Social Change and the Malay Family" in Eddie C. Y. Kuo and Aline K. Wong, eds., *The Contemporary Family in Singapore* (Singapore: Singapore University Press, 1979), pp. 91-97.

<sup>97</sup> It should be noted that the so-called extended pattern is only a general picture, and there existed variations in the size of family. For China, see Olga Lang, *Chinese Family and Society* (New Haven: Yale University Press, 1968), pp. 14-15. For the Japanese case, see Befu, *op. cit.*, pp. 43-44 and Takashi Koyama, "Changing Family Structure in Japan" in Smith and Beardsley, eds., *op. cit.*, pp. 47-51.

<sup>98</sup> Lang, *op. cit.*, and Rizaemon Ariga, "The Family in Japan", *Marriage and Family Living*, 16, Nov 1954, 364.

<sup>99</sup> The Five Social Dyads are "Emperor and Minister, father and son, elder brother and younger brother, and husband and wife". See *The Mean* in Legges, *op. cit.*, p. 384. Concerning the elaboration of these five dyads, see Chen-Lou Chu, "On the Shame Orientation of the Chinese" (in Chinese) in Yih-Yuan Li and Kuo-Shu Yang, eds., *Symposium on the Character of the Chinese: An Interdisciplinary Approach* (Taiwan: Institute of Ethnology, 1971), pp. 108-111.

was the root of all virtues. Under the requirement of *xiao*, children should obey and conform to the rules of the father and show reverence and respect towards him. They should respect their father and be absolutely submissive. "The behaviour of the parents should be tolerated, accepted and even praised."<sup>100</sup> To bring up children with a good personality especially with filial piety, parents usually disciplined their children strictly. As an idiom says, "Many kind mothers ruin their children". Corporal punishment was a recommended way to discipline children. By means of punishment, children would learn to be good - "the cane produces a filial child."<sup>101</sup>

The eldest son of the family shared the authority and respect of the father - "there is awe for the father, and the elder brother. Wife and younger children ... are like the common people, serfs and underlings."<sup>102</sup> As the eldest son was expected to be the one to succeed to the headship of the family, next to the father, he became the most respected member of the family. Hence the younger members played a subordinate role in the family and they were required to give way whenever there was a conflict.<sup>103</sup>

In Japan, the authority of the father was also supreme in the family. As the head of the household, he was served first at meals and went first to the family bath. Moreover, he was feared by other members of the household - "the things that one has most to fear are earthquake, thunder, fire and father (*jishin, kaminari, kaji* and *oyaji*)". In the family, the father was an ideal model for the rest and he was the only person to make final decisions - even the choice of the family successor. Ultimately, every activity of the individual members was regulated under his leadership.<sup>104</sup> Filial piety (*ko*) is also one of the greatest virtues in Japan. China has its *Filial*

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<sup>100</sup> Jing Hsu, "Chinese Parent-child Relationships as Revealed in Popular Stories for Children" (in Chinese) in Li and Yang, eds., *op. cit.*, p. 215.

<sup>101</sup> Wen-Hsing Tseng, "On Chinese National Character from the View Point of Personality Development" (in Chinese) in *ibid.*, p. 239.

<sup>102</sup> *Filial Piety Classic (Xiao Jing)*, Sacred Book III, p. 488. Cited by Lang, *op. cit.*, p. 24.

<sup>103</sup> Jing Hsu, *op. cit.*

<sup>104</sup> Chie Nakane, *Kinship and Economic Organization in Rural Japan*, (London: The Athlone Press, 1967), p. 19.



*Piety Classic (Xiao Jing)*, but Japan also has its *Bibliographies of Filial Sons (So Ko Shi Den)*. Citizens possessing filial piety were honoured by Japanese rulers. For instance, Heizo, a filial son, was awarded much gold by the Shogun Ieshige (1745-1760 A.D.).<sup>105</sup> Filial piety is an obligation as well as an absolute loyalty to parents. Moreover, it is an unconditional repayment of grace (*on*). "If necessary, you must let your wife and children starve and sacrifice your life on behalf of your parents (*oyabun*) or "jump through fire or into water for the sake of the *oyabun*."<sup>106</sup> Hence, in the family, children were required to be absolutely obedient to their parents, as they were in China. However, to foster their obedience and filial piety, a mother often punished her children by self-blame, self-reproach, being sick or even by dying. As her children knew that their misconduct had hurt their mother, a sense of guilt and shame was aroused in them. Combined with the repayment-of-*on* complex, they amended their behaviour to meet the demand of their parents, in order not to continue to hurt them, or disgrace them and their families.<sup>107</sup>

<sup>105</sup> Francis L. K. Hsu, *Iemoto: The Heart of Japan* (New York: John Wiley & Sons Ltd., 1975), p. 25.

<sup>106</sup> Hiroaki Iwai, *Byori Shudan No Kozo (The Structure of Pathological Groups)* (1963), cited by Takie Sugiyama Lebra, *Japanese Patterns of Behaviour* (Honolulu: The University Press of Hawaii, 1976), p. 176. Japanese piety (*ko*) is different from Chinese *xiao* in a way that the Japanese *ko* is "shown to the leader of a kind of economic corporate group, but combined with family sentiment", whereas the Chinese *xiao* is more of a family sentiment. See Nakane, *op. cit.*, p. 21. Chie Nakane also suggests that the Japanese *ko* is applied to one's foster-parents whilst the Chinese *xiao* is owed primary to one's real parents only, under any circumstances, for there is a Japanese proverb saying that "more important than real parents are one's foster-parents". (See *Ibid.*, p. 21) However this point is dubious as the Chinese have exactly the same maxim. Moreover, Ruth Benedict suggests that the Japanese *ko* is unconditional whilst the Chinese *xiao* is overridden by the virtue of benevolence (*jin*) (Benedict, *op. cit.*, p. 81). This point is dubious as well because absolute submission, obedience and sacrifice for the parents as the manifestation of *xiao* are also expressed by Chinese scholars; and there is a Chinese maxim saying that "parents are never wrong". Moreover, Sprenkel says, "Offences of a treasonable nature' ... were: rebellion, disloyalty to the imperial house, desertion of duty, parricide, massacre, sacrilege, lack of filial piety, discord within the family, insubordination to officials, and incest ... (Balazs) observed that the essence of all ten crimes was disobedience to constituted authority (just as the key virtue *xiao*, usually translated - misleadingly - as "filial piety", really amounted to *complete submission* to one's seniors and superiors)." Hence, I regard the quality of filial piety in China as similar to rather than different from that in Japan. See S. van der Sprenkel, *Legal Institutions in Manchu China: A Sociological Analysis* (London: The Athlone Press, University of London, 1966), p. 82. See also Lin Yu-Tang, *My Country and My People* (London: William Heinemann Ltd., 1938), pp. 168-171; Jing Hsu, *op. cit.*, p. 215 and Martin M. C. Yang, "Familism and Chinese National Character" in Li and Yang, eds., *op. cit.*, pp. 142-146 and 167-170.

<sup>107</sup> Minako Kurokawa Maykovich, "The Japanese Family" in Man Singh Das and Panos D. Bardis, *op. cit.*, pp. 387-390.

The eldest son, who usually succeeded to the control of the *ie* (household), also enjoyed privileges and respect in the family, second only to the father. As the successor was the one to inherit all the household properties, the other siblings did not receive anything and they had to move out and establish their own homes when they got married. Hence, the hierarchy between the eldest son (the successor-to-be) and the other siblings was clearly defined: he was superior to the other members of the family, and he received the best care and attention in the family.<sup>108</sup>

Women have traditionally played a submissive role in Chinese society. They were the weaker sex, expected to be weak and benign - "the female are weaklings" and "a gracious lady usually has an unfortunate life."<sup>109</sup> In the family, a female was usually dependent and inferior, for she was expected to observe the traditional "three obediences" - to obey her father as a girl, her husband as a wife and her son as a widow. As a wife, she was expected to care for her husband's household, raise the children, serve her husband's parents, and promote the welfare of the family.<sup>110</sup> "Only as a remote and subsidiary consideration was she cast in the role of a companion to her husband, and any overt show of affection on his part for her was viewed as a definite breach of good taste."<sup>111</sup> If she was childless or could not give birth to a male heir, the husband could take a concubine.<sup>112</sup>

In spite of holding a humble position, because she was a mother, she could receive the filial piety of her children; being the mistress of the home, she could also sometimes exert certain personal influence in the family. She could even be dominant when she became a widow and when there was no adult relative to act

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<sup>108</sup> Tadashi Fukutake, *Japanese Rural Society*, trans. R. P. Dore (London: Cornell University Press, 1972), p. 47.

<sup>109</sup> Rance P. L. Lee, "Sex Roles, Social Status and Psychiatric Symptoms in Urban Hong Kong" in Arthur Kleinman and Tsung-Yi Lin, eds., *Normal and Abnormal Behaviour in Chinese Culture* (Holland: R. Reidel, 1981), p. 283.

<sup>110</sup> Chao Feng-Chieh, *Legal Position of Chinese Women*, p. 1, cited by Lang, *op. cit.*, p. 43.

<sup>111</sup> Marion J. Levy, Jr., *The Family Revolution in Modern China* (Cambridge: Harvard University Press, 1949), p. 175.

<sup>112</sup> Francis Hsu, *op. cit.*, p. 27.

as family head.<sup>113</sup> Daughters were certainly the most unfortunate members of the family. Besides being inferior, they were deprived of the opportunity of education, for a lack of ability was held to be one of the traditional virtues in women.<sup>114</sup>

Women have played a subservient role in Japan also. They were not only viewed as the weaker sex but even as inherently evil by nature. Such was a view expressed in the well-known Japanese novel, *The Tale of Genji*: "If they were not fundamentally evil, they would not have been born as women at all."<sup>115</sup> The inferiority of a woman came from the fact that she was dependent throughout her life. She belonged to her father before marriage, to her husband after marriage and to her son in widowhood. Her body was not hers to do as she wished but the property of the *ie* in which she lived.<sup>116</sup> However, such "property" was insignificant to the household, for her loss did not affect the household structure.<sup>117</sup> As a wife, her relationship to her husband was like the relationship of a subject to a lord. She walked after her husband and called him *otoochan* (father):

A woman has no particular lord. She must look to her husband as her lord, and must serve him with all worship and reverence, not despising or thinking lightly of him. The great lifelong duty is obedience. In the dealings with her husband, both the expression of her countenance and style of her address should be courteous, humble and conciliatory, never peevish and intractable, never rude and arrogant - that should be a woman's just and chiefest care.<sup>118</sup>

Not only should she obey her husband, but she had to enjoy obeying him. Her pleasure indeed came from being obedient and dependent. She had no rights; only

<sup>113</sup> Lin Yu-Tang, *op. cit.*, pp. 137-139; and Lang, *op. cit.*, p. 52.

<sup>114</sup> It is said that "a woman without talent is virtuous" and "woman too well-educated is apt to create trouble". See Stanley L. M. Fong, "Sex Roles in the Modern Fabric of China" in Georgene H. Steward and Robert C. Williamson, eds., *Sex Roles in a Changing Society* (New York: Randon House, 1970), p. 379.

<sup>115</sup> Shikibu Murasaki, *The Tale of Genji*, trans. Arthur Waley. The Modern Library Edition (New York: Randon House, 1960), p. 666.

<sup>116</sup> Lehmann, *op. cit.*, p. 99.

<sup>117</sup> Nakane, *op. cit.*, p. 21.

<sup>118</sup> L. Crammer-Bying and S. A. Kapddin, eds., *Women and Wisdom of Japan* (London: John Murray, 1914), p. 38.

duties. In the family, her duty was similar to that of a Chinese wife - to raise children, to serve and obey her husband and parents-in-law, and to promote the welfare of the family. Fortunately, Japanese women could in practice gain some significance in the family. As the mother was always at home with her children, she had a strong physical and emotional link with her children. Because of this emotional link and the affection between mother and children, her children were usually attached to her and dependent on her. She could also expect filial piety from her children.<sup>119</sup> Moreover, if she could contribute to the household economically, her status would be higher. Hence, Japanese wives could enjoy certain power and influence in their households.<sup>120</sup> As in China, daughters in Japan were very unfortunate. Japanese people preferred to have at least three children, with the daughter as the first born and then two sons to follow. The rationale was: "One to sell, one to follow, one in reserve." It was good to have a daughter because she could help with household chores. In difficult times, they even sold their daughters as prostitutes; and the daughters could do nothing but accept their fate.<sup>121</sup> Education was not provided for them either. In the Tokugawa period, Matsudaira Sadanobu, the Shogunal Chancellor (1786-1793) pronounced:

It is well that women should be unlettered. To cultivate women's skill would be harmful. They have no need of learning. It is enough if they can read books in *kana* (the Japanese syllabary). Let it be that way.<sup>122</sup>

Not only were the traditional Chinese and Japanese family relationships similar, but so was the pattern of marriage. Both societies practised arranged marriage.

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<sup>119</sup> Ezra F. Vogel, *Japan's New Middle Class: The Salary Man and His Family in a Tokyo Suburb* (California: University of California Press, 1971), pp. 194 & 232-233.

<sup>120</sup> Nakane, *op. cit.*, p. 25. Again, the comparison of the status of women in China and Japan is of interest. Francis Hsu suggests that Japanese women are more powerful than Chinese women in reality, although they look more subservient. However this is dubious because we find empresses in China but not in Japan. Perhaps, what Chie Nakane suggests is truer: "It is extremely difficult to describe the status (in the sense of power and prestige) of Japanese women in the household. It can be very low, or very high, it all depends on the situation in which she is involved." See *ibid.* and Francis Hsu, *op. cit.*, p. 21.

<sup>121</sup> Tadashi Fukutake, *Japanese Rural Society*, p. 47 and Francis Hsu, *op. cit.*, p. 26.

<sup>122</sup> Cited by Herbert Passin, *Society and Education in Japan* (New York: Teachers College, Columbia University, 1965), p. 46.

Hence a man did not need to be self-supporting in order to get married. Usually parents chose a bride for their son from a family of similar status, and the bride they chose was for the benefit of the family, as the function of marriage was mainly to continue the family line. For successful matching, they usually consulted go-betweens who had wide knowledge of the situations of different families. The individual wishes of the parties concerned were not consulted. Should there be any "love" between them, it developed after their wedding.<sup>123</sup> Divorce was of course a male privilege. In China there were 'seven grounds' for repudiating a wife. Fortunately she was in her turn protected by "three reasons" for not repudiating and the idea that divorce was a real tragedy. Rich people usually took concubines if they were dissatisfied with their wives.<sup>124</sup> In Japan, women were more unfortunate. A wife could be repudiated at will. A bride's position in the groom's family was not secured and she was considered an "outsider" of the family until the birth of the first son.<sup>125</sup> Moreover, it was not easy to live in the groom's family and to please every member of the family especially the mother-in-law who stayed at home all day long with her. As a consequence, it was inevitable that conflicts occurred between mother-in-law and daughter-in-law. The poor relationship between them has been well known in Japan as well as in China.

Although there were similarities between Chinese and Japanese traditional families, there also existed significant differences between them. The first and foremost difference between them was the nature of the patrilineal link in the family. Both of them emphasized the patrilineal link in the perpetuation of the family, but the way they defined the link differed. In China, the perpetuation of the family meant the perpetuation of the patrilineal blood line. Hence, if a man had no son and he had to

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<sup>123</sup> Aline K. Wong, "The Modern Chinese Family - Ideology, Revolution and Residues" in Man Singh Das and Panos D. Bardis, eds., *op. cit.*, pp. 254-257.

<sup>124</sup> The "seven grounds" for divorcing a wife were (1) if she disobeyed her husbands' parents; (2) failed to bear children; (3) committed adultery; (4) exhibited jealousy; (5) had some repulsive disease; (6) was garrulous; (7) stole. The "three reasons for not repudiating" were (1) if she had mourned her husband's parents for three years; (2) if she had no family to take her in (3) if her husband's family had become wealthy after their marriage. See Lang, *op. cit.*, pp. 40-41. Concerning the low rate of divorce in China, see Wong, "The Modern Chinese Family", p. 257.

<sup>125</sup> Maykovich, *op. cit.*, pp. 386-389.

adopt a son for the continuation of the family line, inevitably he had to choose one from his next of kin, that is, his father's brother's son. Adoption of a non-relative was not a practice also because a change of surname was not acceptable to Chinese people. However, in Japan, the perpetuation of the family did not necessarily mean the perpetuation of the blood line. Hence, the "unbroken line of descent", of which old Japanese were so proud, meant the succession of family name and occupation rather than the genetic succession. This concept of succession enabled a Japanese family to adopt the son-in-law or any 'suitable' candidate as successor of the family. Even with male children, the family head could still adopt a capable person as his successor to raise the prestige of his family. To the Japanese, this flexible adoption of heir was important for it enabled the family occupation and prestige to be inherited by a well qualified person. On the other hand, the Chinese found it more difficult to adopt a son of good promise.<sup>126</sup>

The second significant difference was the rule of inheritance. In China, when the father decided to distribute his properties among his sons or when he died, every son of the family obtained a share of the household properties, although the eldest son usually obtained the largest share. The sons, after they had got married or obtained their share of household properties, still lived together or at least close to one another. This was a manifestation of the extended family ideal. Japan did not share this ideal. Succession of the household properties was limited to one and only one heir. The other family members got virtually nothing. Usually the younger sons left the household and established their own families when they got married or became self-supporting. It was seldom that two married brothers lived together. If it did happen, the family of the non-successor was viewed as an "extra member" of the household, and the non-successor might even work under the successor for his living.

Under the family system of China, every male member of the family was in-

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<sup>126</sup> Harumi Befu, "Corporate Emphasis and Patterns of Descent in the Japanese Family" in Smith and Beardsley, eds., *op. cit.*, pp. 38-39.

cluded in the extension and continuation of the family. This system enlarged the family circle and created a big family - as big as the family resources could sustain. However, in Japan, as there was only one heir, other sons were excluded from the continuation of the family line. This system encouraged the separation of families. It also created a hierarchical relationship between the successor and other non-successors. The existence of such a hierarchy in the family precluded the development of sibling relationships - "the sibling is the beginning of the stranger".<sup>127</sup> Moreover, due to this strong and exclusive system of family succession, filial piety and loyalty towards the father became an obligation toward the head of the family rather than toward the actual father. As the father remained head of the family until his death in China, his status as the legitimate and spiritual authority did not change throughout his life. But it was different in Japan. The headship of the family would shift to the son when the father retired, and the status of the father was thus lowered when he retired. Chie Nakane makes the following observation:

Even in pre-war times the behaviour of Japanese children toward their parents often surprised Chinese who visited Japan, because of the lack of respect toward parents as measured by Chinese standards of conduct. The son's attitude toward the retired aged parent was particularly out of keeping with that of the Chinese.<sup>128</sup>

Nevertheless, the system of inheritance in Japan had two advantages over the Chinese counterpart. First, since non-successors had to establish their own families outside their original family, the family was not weakened by long-term continuous division of household properties among family members, as happened in China.<sup>129</sup> Secondly, the non-successors had to seek identity, significance and sense of belonging outside their families from their secondary groupings, such as their companies, schools of flower arrangement, tea ceremony, judo, painting, calligraphy, drama, archery, and so forth - the *iemoto*. The *iemoto* was like a family where there was

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<sup>127</sup> Erwin H. Johnson, "The Emergence of a Self-conscious Entrepreneurial Class in Rural Japan" in *ibid.*, p. 95. See also Nakane, *op. cit.*, pp. 5-8 and Francis Hsu, *op. cit.*, pp. 29-30.

<sup>128</sup> Nakane, *op. cit.*, pp. 21, 17-20.

<sup>129</sup> Johnson, *op. cit.*

authority, interlinking hierarchy and a personal relationship with the master. Every member belonged to this big “family” and was responsible for extending it both in size and prestige.<sup>130</sup> This helps to explain why Japanese commit themselves so much to their companies or other secondary groups to improve the prosperity of the groups concerned. This may further explain why the Japanese were able to respond to the challenge of the West and modernize, whilst China could not. As the Japanese generally sought satisfaction outside their families, they tried their best to perform well and to promote their groups. Conversely Chinese people’s satisfaction was within their families. They were unwilling to accept anything that would change their existing family system. Francis Hsu asserts that this is the key difference between Japan and China in respect of their response to the Western challenge:

To meet the challenge of the West, China has had to make major structural rearrangements in her social organization. The Chinese who were used to depending on kinship and its immediate extensions for sources of intimacy have had to be steered elsewhere. Resistance to this change is so great that the task is far from complete over twenty years after the Communist assumption of power.<sup>131</sup>

The shadow of the family tradition is still cast upon the modern societies of Japan, Singapore and Hong Kong, as both the Chinese and Japanese have strong traditions and long histories of their own. Arranged marriage is still practised in Japan, although in a modified form. Families in Hong Kong and Singapore still bear a centripetal characteristic. People of close kin tend to live close to one another and visit one another frequently. The family model is extended to the society. Authority, old people and teachers are still respected (although not as much as they were in the past). In Japan, the repayment of *on* applies also to the employer-employee relationships.<sup>132</sup>

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<sup>130</sup> Francis Hsu, *op. cit.*, pp. 59-70, 150-153.

<sup>131</sup> *ibid.*, p. 153.

<sup>132</sup> George De Vos, “The Relation of Guilt Toward Parents to Achievement and arranged Marriage among the Japanese”, *Psychiatry*, 23, 1960, 295-298; Befu, *Japan: An Anthropological Introduction*, pp. 51 & 135-137; Salaff, *op. cit.*, pp. 44.; Keith Hopkins, “Housing the Poor” in Hopkins, ed., *op.*



Strong tradition notwithstanding, because of the impact of urbanization, industrialization and Westernization, the family patterns of Japan, Singapore and Hong Kong have undergone substantial changes in the modern age. First, there have been changes in the family structure. All three societies have reported the emergence of the nuclear family, and it is now more common than is the extended family in these societies. In Hong Kong in the 1980s, over 70 per cent of the households are nuclear families. In Singapore in 1977, nuclear families comprised 80.7 per cent of the total number of households; and in Japan, they comprised 63.4 per cent in 1980. Over half of the households are nuclear families in the three societies. It is particularly remarkable that the change of family structure is faster in Hong Kong and Singapore, although, as mentioned, the Chinese are the least ready to change their traditional ideal of the extended family. There are two reasons for such rapid change. In the first instance, Hong Kong and Singapore are mainly migrant societies. The immigrants who have left their traditional extended families to move to a completely new environment are more willing to change. A second reason for the change is that Hong Kong and Singapore face acute housing shortages. Because of the lack of living space, it is difficult for people to cling to their traditional ideal of big and extended families.<sup>133</sup> With the emergence of nuclear families and the impact of family planning, the size of family is kept small. In Hong Kong and Singapore in the 1980s, the average size of family is about 5.3 persons; and it was 3.33 persons in Japan in 1980.<sup>134</sup> Moreover, the size of family is inversely proportional to the level of education of the couple - the more educated the couple is, the fewer

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*cit.*, pp. 305-314; S. Rosen, "Sibling and In-law Relationships in Hong Kong: The Emergent Role of Chinese Wives", *Journal of Marriage and the Family*, 40, Aug 1978, 621-628; Aline K. Wong, "The Urban Kinship Network in Singapore" in Kuo and Wong, eds., *op. cit.*, pp. 27 & 32.

<sup>133</sup> Concerning the high proportion of immigrants in Hong Kong and Singapore, see David Podmore, "The Population of Hong Kong" in Hopkins ed., *op. cit.*, p. 48 and Eddie C. Y. Kuo and Aline K. Wong, "Some Observations on the Study of Family Change in Singapore" in Kuo and Wong, eds., *op. cit.*, pp. 6-7. Concerning the problem of housing shortages in Hong Kong and Singapore, see Keith Hopkins, "Housing the Poor" in Hopkins, *op. cit.*, pp. 297f.; A. J. Youngson, *Hong Kong Economic Growth and Policy* (Hong Kong: Oxford University Press, 1982), p. 38 and Chan Heng Chee, "The Political System and Political Change" in Hassan, ed., *op. cit.*, p. 31.

<sup>134</sup> For figures, see Chen Suduan, "Family Changes in the 1980s and the Adolescent Problems" (in Chinese) in Federation of Students' Unions and CUHK Students' Union, eds., *A Perspective of Hong Kong Education* (Hong Kong: Wide Angle Press, 1982), p. 250; Peter S. J. Chen, Eddie C. Y. Kuo and Betty Jamie Chung, *The Dilemma of Parenthood: A Study of the Value of Children in Singapore* (Singapore: Maruzen Asia, 1982), p. 31; and Fukutake, *Japanese Society Today*, p. 32.

children they have.<sup>135</sup>

Second, the custom of arranged marriage has declined, especially in Hong Kong and Singapore. In Hong Kong, even in rural villages in the New Territories, arranged marriage is unpopular among young people who believe in romantic love and assume the right to choose their mates for themselves. In Singapore, young people begin dating at around age 16-17 years. In Japan, although arranged marriage still prevails, the opinion of the parties concerned is consulted and is supplemented by "dating" before marriage. Moreover, an increasing number of people feel that they should be free to decide their own marriage. People holding such views comprised 33 per cent in a survey in 1949. In another survey in 1969, 44 per cent of city dwellers held such attitudes.<sup>136</sup>

Third, as family relationships become more egalitarian, the status of women is raised. Because of the recognition of woman's rights (such as the right of voting, divorce and being educated) in legislation, the rising educational level among women and the increasing economic contribution of women, women nowadays enjoy a better position and more rights in society and in their families. Relatively speaking, the status of woman is higher in Hong Kong.<sup>137</sup> As more and more people choose their mates in marriage, families today are more husband-and-wife orientated

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<sup>135</sup> I. C. Jarvie, "Introduction", in Jarvie, ed., *op. cit.*, p. xviii, and Chen, Kuo and Chung, *op. cit.*, p. 111.

<sup>136</sup> Jack M. Potter, "The Structure of Rural Chinese Society in New Territories" in Jarvie, ed., *op. cit.*, pp. 24-25; Aline K. Wong *Economic Development and Women's Place: Women in Singapore* (London: Clvert's North Star Press, 1980), p. 14; Maykovich, *op. cit.*, p. 393; and Fukutake, *Japanese Society Today*, p. 34.

<sup>137</sup> "Unlike Singapore Chinese, Hong Kong men do not seem to resent the development of economic independence amongst women - at least, not that independence created by property-ownership. At the lowest reckoning, property-owning by women ranks an important extension of the economic activities of Chinese women in Hong Kong." See L. F. Goodstadt, "Urban Housing in Hong Kong" in Jarvie, ed. *op. cit.*, p. 294. His observation accords with Aline Wong's finding: "Our survey findings show that housewives still hold a negative image of working women". See Aline K. Wong, "Women in Changing Family Values" in Kuo and Wong, eds., *op. cit.*, p. 61. Concerning the status of women in Singapore and Japan, see Chan Heng Chee, "Notes on the Mobilization of Women into the Economy and Politics of Singapore" in Wu Teh-Yeo, ed., *Political and Social Change in Singapore* (Singapore: Institute of Southeast Asian Studies, 1975), pp. 16 and 20-22; and Joy Paulson, "Evolution of the Feminine Ideal" in Joy Lebra, Joy Paulson and Elizabeth Powers, eds., *Women in Changing Japan* (Colorado: Westview Press, 1976), pp. 20-22.

than parent-and-child orientated. Among young people the ideal husband-wife relationship is companionship.<sup>138</sup> Hence, the authority and influence of the father as the head of the house have declined. Concerning the parent-child relationship, parents, especially educated parents, are less authoritarian towards their children. When they teach their children, they prefer discussion and persuasion to strict discipline and punishment. A survey in Hong Kong has found out that among juvenile delinquents, 90.7 per cent come from families which exercise strict discipline or punishment.<sup>139</sup> It suggests that the traditional method of strict discipline is not as effective as it was in the past. Because modern families are usually restricted to the "two-child" pattern, the hierarchy between son and daughter, the elder brother and the younger ones is certainly weakened. With fewer children, parents can afford education for all their children. It further reduces the inferiority of the daughter and younger children in the family. Moreover, children can experience more personal love and concern from their parents. In Japan, even though the practice of primogeniture still exists, the relationship between siblings is becoming more equal. The relationship between mother-in-law and daughter-in-law has also "improved", as young couples tend to live apart from their parents.<sup>140</sup>

The changes of family patterns in these modern societies have eradicated much of the traditional family conflicts and inequalities, but these changes also create other problems. First, the widening of the generation gap is obvious. Because young couples live away from their parents and because the young generation receive Western education, the physical and intellectual distance between the two generations is widened. Old people nowadays feel more insecure as they cannot rely on their children to take care of them or support them. Although they are still respected, the degree of respect they receive is certainly less than they could

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<sup>138</sup> Aline K. Wong *Economic Development and Women's Place*, *op. cit.*

<sup>139</sup> Chen Suduan, *op. cit.*; p. 251; Anges Ng, "Family Relationships and Juvenile Delinquency" (in Chinese) in Qiu Chengwu et al., eds., *A Study of the Adolescent Problems in Hong Kong* (Hong Kong: Going Fine, 1983), p. 119.

<sup>140</sup> Chen Suduan, *op. cit.*; Aline K. Wong, "The National Family Planning Programme and Changing Family Life" in Kuo and Wong, eds., *op. cit.*, pp. 218-219; and Y. Scott Matsumoto, "Notes on Primogeniture in Postwar Japan" in Smith and Beardsley, *op. cit.*, p. 68.

have expected in the past.<sup>141</sup> Secondly, although children may have more opportunities of being educated, they experience more pressure in education from their parents. With fewer children, parents are more anxious of the success of each of their children, for their success is relatively more significant to the whole family. Children in the educated families in the three societies particularly experience this form of pressure.<sup>142</sup> Thirdly, at the other extreme, with the increase in maternal employment, children often lack care at home. As both parents have to work and there are no older people at home, many children experience an empty home in the day time. The communication between parents and children is thus affected. As a study shows, daughters express less affection for their working mothers. Moreover, it is found that many adolescent problems arise because of this lack of supervision at home.<sup>143</sup>

### 3. Religions

Japan, Singapore and Hong Kong all have strong religious traditions. Even today, there is still a wide range of religious beliefs and customs existing in these societies. Besides the existence of numerous temples, shrines and churches, these societies are also characterized by all sorts of different religious festivities. This is especially evident in Japan and Singapore. In Japan, according to government statistics, there were 404 religious orders in 1965; and they grew to 442 by 1972. Many department stores customarily install a shrine dedicated to the Shinto tutelary god of merchants, the *Inari*. Many fortune tellers ply their trade in the streets at night. Many people hold their weddings by Shinto ceremonies. Moreover, new prime ministers customarily visit the Ise Shinto Grand Shrine, although government and religion are officially separated. In Singapore, according to the 1980 Census, only

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<sup>141</sup> Fukutake, *Japanese Society Today*, p. 38.

<sup>142</sup> *Ibid.*, pp. 40-41 and Chan, Kuo and Chung, *op. cit.*, p. 110.

<sup>143</sup> Chen Suduan, *op. cit.*; and Boey Chee Yu, "Daughters and Working Mothers: The Effect of Maternal Employment" in Kuo and Wong, eds., *op. cit.*, p. 84.

13.2 per cent of the populace claimed to have no religious faith at all. As there are not only Chinese but also Malays and Indians, Singapore is characterized by a multi-religious situation as well: all the main religions of the world have a place in this tiny country. In Hong Kong, among the 17 statutory holidays, 11 of them involve religious worship.<sup>144</sup>

The three major traditional Chinese religions - Confucianism, Taoism, and Buddhism - are still representative religions in Hong Kong and Singapore, since they are mainly Chinese societies. In Singapore, Islam and Hinduism have some significance as well. In Japan, Shintoism and Buddhism were and still are the main religions of the society. On the other hand, Christianity is regarded as one of the major religions in all three societies.

### *Confucianism*

Confucianism was originally a major school of thought in China. Whether it is a religion is a matter of dispute.<sup>145</sup> For instance, Lin Yu-Tang regards Confucianism as more akin to humanism than to religion.<sup>146</sup> However, Confucianism can be considered as religion at least in two respects. First, there are religious elements in Confucius' teachings. Second, Confucius himself and other sages and heroes were later regarded and worshipped as deities (*shen*). Although Confucius was sceptical of supernaturalism, he himself believed in the determinism of fate by Heaven.<sup>147</sup> The belief in Heaven and fate, the emphasis on ancestor worship, and the adoption of

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<sup>144</sup> For more details, see Kiyomi Morioka, *Religion in Changing Japanese Society* (Tokyo: University of Tokyo Press, 1975), p. 3; Edward Norbeck, *Religion and Society in Modern Japan: Continuity and Change* (Texas: Tourmaline Press, 1970), pp. 1-2; Woodrow, *op. cit.*, p. 31; and *Hong Kong 1984: A Review of 1983*, p. 202.

<sup>145</sup> The classification of Confucianism as a religion has been in dispute, it may better be classified as a "quasi-religion", as Manfred Berndt suggests. See Manfred Berndt, "Servanthood Among Para-Christian and Non-Christian Religions in Hong Kong", *Ching Feng*, 14(4), 1971, 166.

<sup>146</sup> Lin, *op. cit.*, pp. 99-103.

<sup>147</sup> See C. K. Yang, *Religion in Chinese Society: A Study of Contemporary Social Functions of Religion and Some of Their Historical Factors* (California: University of California Press, 1967), pp. 249-250.

Yin-yang and the Five Elements, all became important elements of Confucianism.<sup>148</sup> Confucius not only had teachings with religious elements, but he himself was later worshipped along with some other sages and deities, or even worshipped as a specific deity in his own right. Nowadays, statues and portraits of Confucius are found in temples placed alongside those of other deities. Those who regard Confucius as a specific deity focus on him as the centre of a specific religious complex. A feature of Confucianism as a folk religion is that Confucius is venerated as an educational *shen*, as he has been regarded as the great teacher in China. Also, Confucianism is always mixed with Buddhism and Taoism, forming a more generalized religious tradition.<sup>149</sup>

In Singapore and Hong Kong, although not many people claim to be Confucianists or worship Confucius as a god, the belief in Heaven and fate, the practice of ancestor worship, and the concept of Yin-yang and the Five Elements have in fact become interwoven in the fabric of people's daily lives. But the distinctive character of the religion and its philosophy is not always clear.<sup>150</sup> Besides functioning as a philosophico-moral system, Confucianism consolidates the centripetal family tradition in the two societies (as mentioned in the previous section).<sup>151</sup> Moreover, in Singapore, portraits of Confucius appear in many temple altars. Those who venerate Confucius as an educational *shen* pay visits twice a year to temples where his images are placed - they pray to his images when their children have examinations, and they observe his birthday on the 27th day of the 8th Lunar month (or 28th September by the solar calendar, a date reckoned by the Taiwan government).<sup>152</sup>

<sup>148</sup> C. K. Yang, *op. cit.*, pp. 247-263.

<sup>149</sup> Leo Juat Beh and John Clammer, "Confucianism as a Folk Religion in Singapore: A Note", *Contributions to Southeast Asian Ethnography*, (2), Aug 1983, 175-176.

<sup>150</sup> On the one hand, statistics on religions in Singapore and Hong Kong do not include Confucianism. On the other hand, Confucianism has so penetrated the Chinese societies that Y. U. Lian, a member of the World Fellowship of Confucianists of Hong Kong and Macao Regional Centre regards all Chinese as Confucianists: "Everyone who is Chinese and who has any shred of Chinese tradition in him, is, thereby, a Confucian." See Berndt, *op. cit.*

<sup>151</sup> *Ibid.*

<sup>152</sup> Leo Juat Beh and John Clammer, *op. cit.*, pp. 176 & 178. In Singapore, "the strongest surviving idea, however, is that the fortunes of men are largely controlled by the working of shen (deities) and by a right propitiation of the more powerful among them." See Alan J. A. Elliot,

In Japan, although Confucianism has never existed as a separate religion,<sup>153</sup> its influence on the society cannot be disregarded. Due to the historical adoption of Confucian ethical values, the shadow of Confucian influence can still be seen in contemporary Japanese society. As Edwin Reischauer comments:

Behind the wholehearted Japanese acceptance of modern science, modern concepts of progress and growth, universalistic principles of ethics, and democratic ideals and values, strong Confucian traits still lurk beneath the surface, such as the belief in the moral basis of government, the emphasis on interpersonal relations and loyalties, and the faith in education and hard work. Almost no one considers himself a confucianist today, but in a sense almost all Japanese are.<sup>154</sup>

### Taoism

Taoist religion, like Confucian, was developed from a philosophical tradition. It has a very long history in China, and is even regarded as the oldest and the only true indigenous Chinese religion. Generally speaking, Taoism as a system of thought is based on the conception that man is a part of Nature, hence he should adjust to and live in harmony with Nature. This way of adjustment may result in the greatest happiness and fortune.<sup>155</sup> This adjustment to Nature leads to an individualistic life-style of non-action in order to return to *Dao*, the natural source of all existence. In a way, this leads to an attitude of passive adjustment towards one's lot of life.<sup>156</sup> Religious Taoism is a system of practices and a pantheon of folk deities adopted from different sources.<sup>157</sup> As a religion, through the worship of gods

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*Chinese Spirit-Medium Cults in Singapore* (London: The London School of Economics and Political Science, 1955), p. 29.

<sup>153</sup> In Singapore, there are Confucian priests performing rituals, but in Japan, there are no bodies of worshippers or ecclesiastic organizations. See *ibid.* and Norbeck, *op. cit.*, p. 8.

<sup>154</sup> Edwin O. Reischauer, *The Japanese* (Tokyo: Charles E. Tuttle, 1978), p. 214.

<sup>155</sup> Sima Qian, "An Autobiography of the Official Historian" in *Shi Ji (Records of the Historian)*.

<sup>156</sup> However this passivity is not so viewed by the Taoists. Laozi holds that non-action may result in all actions, softness may conquer hardness and weaklings may win over the strong. See *Tao-Te Ching*.

<sup>157</sup> See Majorie Topley, "Chinese Religion and Religious Institutions", *Journal of the Malayan Branch of the Royal Asiatic Society*, 29(1), May 1956, 81. It mainly adopted three ideas from philo-

and the fulfilment of ritual ceremonies, people may plead with gods and the forces of Nature to continue to render their services and blessings to people. This is a way to stimulate fortune and avoid misfortunes.<sup>158</sup> They believe in earthly blessings with longevity, geomantic divinations, fortune telling and the use of charms. And they advocate ethical values such as patience, harmony, simplicity and contentment.<sup>159</sup>

In Singapore, 580,334 people - 29.3 per cent of the population aged ten years and over - professed Taoism as their faith, according to the 1980 Census.<sup>160</sup> In Hong Kong in 1968, Taoism had 650,000 adherents - about 16.5 per cent of the population; and there were 400 Taoist temples.<sup>161</sup> As with Confucianism, although not many are Taoists in a strict sense, the beliefs are quite widespread amongst the Chinese in Singapore and Hong Kong. Some ritual ceremonies are widely practised, especially the funerals. In Japan, although Taoism is not a separate religion there either, it reached the country through various channels. During the Heian period, in the guise of formulae, charms and cosmological theories, Taoism entered Shintoism and Buddhism. As a result, people "accepted" Taoism indirectly along with the other religions. Many of the typical beliefs and cults contain Taoist elements, such as the beliefs about lucky days and lucky directions, and about mountain wizards dwelling in mountains. Hence although Taoism cannot be seen as a separate religion, it is only that it is so Japanese that it is difficult to recognize. "To be sure, the people at large understood neither the Chinese origin nor the complete system of religious Taoism, but it nevertheless greatly influenced their lives."<sup>162</sup>

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sophical Taoism: non-action, the centre, and immortality. See Harry Parkin, "Postscript: Chinese Religious Studies To-day", *Contributions to Southeast Asian Ethnography*, 2, Aug 1983, 171. It also incorporated into Taoist philosophy the doctrines of the priest-magician, the philosophy of the Book of Changes (I-Ching) and the theory of Yin-yang and the Five Elements. Moreover, the techniques and practices of alchemy and magico-religious cults were gradually incorporated into the system. See Topley, *op. cit.*, pp. 80-82.

<sup>158</sup> Maurice Freedman, "On the Sociological Study of Chinese Religion" in William Skinner, ed., *The Study of Chinese Society* (A Collection of Essays by Maurice Freedman) (Stanford: Stanford University Press), p. 169.

<sup>159</sup> Evelyn Lip, *Chinese Temples and Deities* (Singapore: Times Books International, 1981), p. 4.

<sup>160</sup> Woodrow, *op. cit.*, and Singapore. Information Division, Ministry of Culture, *Singapore 1983* (Singapore: Information Division, 1983), p. 7.

<sup>161</sup> Berndt, *op. cit.*, P. 171.

<sup>162</sup> H. Byran Earhart, *Japanese Religion: Unity and Diversity* (California: Dickenson Publishing



*Buddhism*

Buddhism has a long history in China too. It flourished and developed in China from the sixth century onwards. Although Buddhism was a religion imported from India, it was completely Sinicized. Throughout history, a number of important schools of Buddhism have developed. Buddhism is divided into two main branches: Theravada Buddhism (the smaller vehicle) and Mahayana Buddhism (the greater vehicle). In Theravada Buddhism, salvation is achieved by observing the noble Eightfold Path,<sup>163</sup> and the cultivation of enlightenment. Suffering is relieved through one's own efforts and Sakyamuni Gautama Buddha is only regarded as a natural man and teacher, at the most a superman. On the other hand, in Mahayana Buddhism, suffering can be relieved through the assistance of "other-power". Salvation in Mahayana Buddhism, especially in the very popular Pure Land School, focuses on a group of deities, such as Bodhisattvas Avalokitesvara (Guan Yin) and Amitabha Buddha (Amituofu), who have reached the state of Buddhahood already, but they return to the human world to release others from suffering. Despite the differences between the two branches, they have some beliefs in common: misery is a part of existence; the future state of reincarnation is affected by deeds performed in this life; and the perceived world is non-essential.<sup>164</sup>

Mahayana Buddhism is the traditional form of Buddhism found in East Asia and is the one popular in Singapore and Hong Kong. It has strong traditional links with Confucianism and Taoism. Besides the emphasis on various virtues such as generosity, self-restraint, forbearance, meditation and wisdom, Buddhists pay pious respect to ancestors, observe sacred duties towards the dead, and perform funeral ceremonies with dedication. Also, the most popular Mahayana Bodhisattva, Guan

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Company, 1969), pp. 29-31.

<sup>163</sup> The Eightfold Path refers to Right view, Right resolve, Right speech, Right conduct, Right livelihood, Right effort, Right awareness, and Right meditation.

<sup>164</sup> See Ray Nyce, "Chinese Folk Religion in Malaysia and Singapore", *The Southeast Asia Journal of Theology* 12, Spring 1971, 81-82; Vivienne Wee, "Buddhism in Singapore" in Hassan, *op. cit.*, pp. 156-159; and Topley, *op. cit.*, pp. 81-82.

Yin, is perceived as a kind and caring goddess, protecting people against evil and keeping people's hearts pure.<sup>165</sup> In Singapore in 1980, 520,174 people - 26.7 per cent of the population - professed themselves as Buddhists. In Hong Kong in 1968, there were about 1,000,000 Buddhists (about a quarter of the population) and 500 Buddhist temples.<sup>166</sup>

Buddhism is the second most important religion in Japan, next to Shintoism. As in China, Buddhism was also naturalized in Japan, and Mahayana Buddhism has been predominant. Mahayana Buddhism developed three different emphases in Japan - esoteric Buddhism, which stressed ritual, art and also doctrine; salvation through faith, particularly in *Amida*, the Buddha of the "pure land" of the Western Paradise; and self-reliance in salvation through meditation and self-discipline. Out of the second emphasis arose three new sects - Jodoshu (the Pure Land Sect), Shinshu (the True Pure Land Sect) and Nichiren. The third emphasis became embodied in the two Zen (Meditation) sects, which further developed the practice of "sitting in meditation" and the idea of instant enlightenment. Nowadays, there are numerous sects of Buddhism in Japan.<sup>167</sup> In Japan today, most funerals are still conducted by Buddhist priests and burial grounds are usually attached to temples. Some families place their ancestral tablets in small Buddhist altars on a shelf at home. It is said that contemporary Japan's daily life is still "full of traces of Buddhism as a sort of background melody."<sup>168</sup>

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<sup>165</sup> Ananda Mangala Thera, "Buddha Dharma and Singapore", *Ching Feng*, 16(3-4), 1973, 146-147, and Vivienne Wee, *op. cit.*

<sup>166</sup> Berndt, *op. cit.*

<sup>167</sup> They are mainly classified into six groups. The first five are representative schools of Buddhism, with Amida, Shingon and Zen as the most popular Schools and also Nichiren and Tendai. The sixth is called Nara sects. This group is a conglomeration of small, ancient sects that hold no religious significance today. See Norbeck, *op. cit.*, p. 65.

<sup>168</sup> Reischauer, *op. cit.*, p. 217.

*Shintoism*

Shintoism is the most widespread Japanese religion. Early Shintoism was mainly an animistic worship of natural phenomena. Totemistic ancestors were worshipped as deities (*kami*) and there was no distinction between man and nature. Shrines were set up dedicated to imperial ancestors, the ancestors of the local *uji*, the deity of rice, or the spirit of some outstanding natural phenomena - unusual mountains, waterfalls, trees or rocks. Deities were worshipped through prayers, offerings, and festivals at many of these shrines. Shintoism did not have a theology or even a concept of ethics, and it did not deal with the problem of after-life. Hence, Shintoism and Buddhism were complementary rather than exclusive. Throughout history, the two existed side by side and it was common for people to hold dual membership in both religions - it is so even today.

Shintoism is generally divided into three systems of belief - Folk Shinto, State Shinto and Sect Shinto. State Shinto was developed in the late Tokugawa period. The emperor was regarded as semi-divine and as the direct lineal descendant of the Sun Goddess. Until the end of World War II, State Shinto was an essential part of Japan's nationalism. After the war, state and religion were separated, and State Shinto came to an abrupt end. Sect Shinto, in terms of organization, is intermediate between State Shinto and Folk Shinto. Sect Shinto has sacred places, such as Mt. Fuji, as the centre, and attracts believers from different areas as well as the local communities. The size of sects varies, but except for a few large ones, Sect Shinto's significance is declining today. Folk Shinto nowadays usually exists with Folk Buddhism as a syncretic belief (which will be discussed below); but it still constitutes a part of beliefs and practices in many people's daily lives and activities. For instance, many people adopt Shinto ceremonies in their weddings. The Japanese love of nature and their sense of closeness to it is also a contribution of Shintoism. Traditional Shintoism seems most alive today in the gay shrine festivals held annually on specific dates at all shrines of any significance. These shrine

festivals remain a prominent feature of local life, especially in the rural areas.<sup>169</sup>

### *Syncretism and New Sects*

Although Confucianism, Taoism, Buddhism and Shintoism were mentioned separately, it is difficult in practice to distinguish these religions from one another in the three societies. A proverb reflects this syncretic mentality of the Chinese: "Flowers, leaves and seeds, they all come from the same root" - the Taoist alchemy, the Buddhist relic and Confucian ethic are identical.<sup>170</sup> In Hong Kong and Singapore, some ceremonies, such as funerals, contain elements of all three religions. Many of the folk deities that people worship are derived from these various religious traditions. For example, Guan Di, the God of War and Righteousness, is of Confucian tradition; Guan Yin, the Goddess of Mercy, is associated with Buddhist tradition; and the Kitchen God is of Taoist tradition.<sup>171</sup> These folk deities add up to 54 in Singapore, according to Evelyn Lip; and many of these deities are common in Hong Kong as well.<sup>172</sup> Guan Yin, Guan Di, the Eight Immortals, the Kitchen God, the Door God, the God of Longevity, the God of Wealth, and Tin Hau are commonly venerated and worshipped in the two societies. Tin Hau, the Queen of Heaven, is particularly important to boat people for she is the protector of seafarers. In Hong Kong, Tin Hau is worshipped by 250,000 people and there are 24 Tin Hau Temples.<sup>173</sup>

Syncretism also occurs in Japan. The folk religions are so syncretic that they

<sup>169</sup> Befu, *op. cit.*, pp. 96-97; and Reischauer, *op. cit.*, pp. 218-220.

<sup>170</sup> Chan Wing-Tsit, *Religious Trends in Modern China* (New York: Columbia University Press, 1953), p. 181, cited by Topley, *op. cit.*, p. 78.

<sup>171</sup> Topley, *op. cit.*, p. 86 and Lip, *op. cit.*, pp. 16 & 19.

<sup>172</sup> Lip, *op. cit.*, pp. 7-31.

<sup>173</sup> *Ibid.*; Hong Kong. Government Information Services, *Hong Kong: The Fact - Religion and Custom* (Hong Kong: Government Printer, 1984), p. 1; James Hayes, "Chinese Temples in the Local Setting" in Majorie Topley, ed., *Some Traditional Chinese Ideas and Conceptions in Hong Kong and Social Life Today*, Weekend Symposium, Oct 1966 (Hong Kong: The Hong Kong Branch of the Royal Asiatic Society, 1967), pp. 86-98; and Majorie Topley and James Hayes, "Notes on Temples and Shrines of Tai Ping Shan Street" in *ibid.*, pp. 123-141.

cannot be meaningfully divided into their Buddhist, Shintoist, or Taoist components. The beliefs include an amalgamation of mythological deities with human forms and spirits of plants and animals.<sup>174</sup> Theological distinctions among gods, deities, souls and spirits is irrelevant in Japanese syncretic folk beliefs. They are rather entities in natural or man-made phenomena, exerting their benevolent or malevolent power according to situations.<sup>175</sup>

New religious sects flourish in contemporary Japan.<sup>176</sup> In the main, emotional appeal is strong within the sects. Their major concerns are success, well-being and happiness in daily lives; and their paradise is on earth. Man is good by nature and morality does not imply a rigid code of behaviour. Sexual relations, alcohol, or gambling may be enjoyed in socially harmless moderation. Their publicly stated goals are humanitarian and pacifist. They have little concern about transcendentalism and they do not sharply distinguish the secular and sacred realms.<sup>177</sup> Because of these emphases of earthly paradise and emotional appeal, the new religious sects attract many people who suffer from anxiety, disease, or shortage of material goods, and those who are not satisfied with traditional religions.<sup>178</sup>

### *Christianity*

Christianity is regarded as one of the major religions in Singapore and Hong

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<sup>174</sup> The former deities are those such as the Sun Goddess and her descendants, historical figures, religious leaders, and even deceased human beings treated as "ancestors". Human souls are quite potent and should be taken seriously. Spirits of plants and animals are practically innocuous, but some of them are considered dangerous, such as spirits of foxes, dogs and reptiles. See Befu, *op. cit.*, pp. 100-104.

<sup>175</sup> *Ibid.*

<sup>176</sup> They numbered about 168 early in 1959. In 1965, there were twenty one sects with over 100,000 members each. Of them, Soka Gakkai and Rissho Kosei Kai are the most prominent ones, and they have gained national importance. These sects are highly syncretic in nature, combining Shinto, Buddhist and even Christian elements in their beliefs. Their doctrines are often composite and poorly formulated, and they resemble one another in many general ways and often in highly specific traits. See Norbeck, *op. cit.*, pp. 12-14.

<sup>177</sup> *Ibid.*

<sup>178</sup> Morioka, *op. cit.*, p. 165.

Kong as well as one of the traditional religions in Japan. It advocates the idea of salvation through faith in Jesus Christ. As Jesus was especially concerned about the poor and needy during his life on earth, Christian churches, both Protestant and Roman Catholic alike, pay much attention to helping those in need - both spiritually and physically. Hence, they put much effort into promoting the social well-being of the people in the three societies.<sup>179</sup> Although numerically Christians comprise only a tiny group - about 10 per cent in Singapore and Hong Kong and 0.8 per cent in Japan<sup>180</sup> - they are highly active in social institutions and charitable organizations, and thus exert a disproportionate influence in these societies. For instance, in Hong Kong in 1983, under the Catholic and Protestant churches, there were 807 schools (including kindergartens and schools for the deaf and the mentally handicapped), 3 post-secondary colleges, 11 hospitals and numerous clinics. In Japan, a large percentage of the private secondary schools and women's universities and other private universities are of Christian origin.<sup>181</sup> In Singapore, counselling services were introduced by the Christian churches. Besides running schools, the churches also provide numerous social services, such as drug rescue and social services in HDB flats and among factory workers. The leaders of Confucianism and Taoism in Hong Kong admit that they would not be so socially involved were it not for the example and challenge of the Christian churches.<sup>182</sup>

Social concern has been a major factor in Christianity gaining significance in the three societies. Its success is also due to the religion being regarded as a status symbol - the religion of the Westerners, the rich and the educated. In the three societies, Christians are disproportionately represented among the highly educated and leading people. Moreover, the Westerners consider Christianity as a part of the culture they bring to these societies; education is thus a means of introducing

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<sup>179</sup> Berndt, *op. cit.*, p. 182.

<sup>180</sup> All the figures include Protestant and Roman Catholic Christians. See *Hong Kong 1984: A Review of 1983*, p. 203; Woodrow, *op. cit.*; and Moriaka, *op. cit.*, p. 117.

<sup>181</sup> Hong Kong. Government Information Services, *op. cit.*, p. 2; Reischauer, *op. cit.*, p. 222; and *Singapore 1983*, pp. 12-13.

<sup>182</sup> Berndt, *op. cit.*, pp. 167 & 171.

both the culture and the religion.<sup>183</sup> The numerous schools set up by the Christian churches no doubt have some influence on the new generations of the societies. In Japan, the Christian influence on ethics is noteworthy. As Japanese religions do not necessarily imply moral precepts, Christianity, a religion advocating high moral standards is very much respected. Being considered a part of the West, these ethical values gradually influence those who are Westernized.<sup>184</sup>

### *Islam and Hinduism*

In Singapore, Islam and Hinduism are significant religions. In 1980, Muslims numbered 323,864 and Hindus 72,401, comprising 16 per cent and 4 per cent of the population respectively. Virtually all Malays (99.4 per cent) are Muslims, but some 10 per cent of Muslims are of Indian and other non-Malay origin.

*Shahadah* (The Confession of Faith) is the central belief of all Muslims who are supposed to keep to it throughout their lives. Soon after a baby's birth, an elder whispers in its ear: "There is no God but Allah and Mohammad is his messenger." There are five pillars in the Islam faith - the confession of faith in the God who is Absolute, *salat* (prayers) said five times a day, the payment of *zakat* (a religious tax), fasting during the month of *Ramadan*, and the *Haj* (pilgrimage). The *Holy Koran* is the heart of Islam, and its recitation is one of the most marked manifestations of faith and learning.

In Singapore, the average Malay family is likely to be influenced by the mosque leaders and by socio-religious rites, practices and observances. The Muslims have a separate law, the Administration of the Muslim Law Act of 1966, governing all

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<sup>183</sup> Joseph Agassi and I. C. Jarvie, "A Study in Westernization" in Jarvie, ed., *op. cit.*, p. 155. "Christians, though few in numbers, are strongly represented among the best educated, leading elements in society and have therefore exerted a quite disproportionate influence." See Reischauer, *op. cit.*, p. 221.

<sup>184</sup> Reischauer, *op. cit.*, p. 222.

matters concerning marriage. All applications for marriage must be approved by the Kadi (marriage officials) before the marriages can be solemnized. Cases of divorce for the Muslims are treated under the Muslim Law instead of the state law. Moreover, the Muslims themselves organize premarital counselling services.

There is a supreme religious authority, the Muslim Religious Council, in Singapore. It organizes activities and welfare for the Muslims, such as the administering of the Mosque Building Programme, arranging financial assistance to needy Muslims and poor Muslim students, and the co-ordination of pilgrimages. The Council also advises the Government on matters relating to Muslim affairs. Each Muslim is required to pay *fitrah* (tithe) each year. The money obtained is mainly for the promotion of secular and religious education among Muslim students. Study grants are given to deserving students from primary to tertiary levels of education. Each working Muslim voluntarily donates at least S\$1 towards the Mosque Building Fund through his employers. Now there are 84 mosques in Singapore. As Islam is not only a religion but a way of life, the daily lives of Muslims in Singapore are characterized by many religious duties and activities.<sup>185</sup>

Hinduism, although it is the religion of only 4 per cent of the population, represents the religion of the Indians, who comprise 6.4 per cent of the population. Almost all Hindus are Indians, although some Chinese, Malays and other non-Indians have joined the religion as well. Hinduism in Singapore retains the distinction between the North and South Indian traditions. And the South Indian tradition is dominant. There also exists a group of reformists - the neo-Hinduists - who try to eliminate the North-South barrier and de-ceremonialize traditional Hinduism. The average Hindu is influenced profoundly by the religion throughout his life and the various stages of his life are always marked by religious rituals. The temple is the centre of many Hindu festivals and ceremonies, and there are about 20 Hindu temples existing today.

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<sup>185</sup> *Singapore 1983*, pp. 7-9.



Hinduism in Singapore has undergone a certain degree of adaptation. The time devoted to ceremonial activities is reduced to weekday evenings and Sunday mornings only. Some busy men who cannot spare time for ceremonial activities pay for their religious activities to be performed by others. This is known as “vicarious ritualization”. Secondly, a certain amount of “compartmentalization” occurs - the world outside the home is not a Hindu world. Hindu life is confined to the home only. Thirdly, due to the shortage of qualified priests in Singapore, elaborate domestic rites are forgone. Fourthly, the function of temples is no longer confined to a small, ethnically homogeneous local community. They have become a resource for all Hindus. However the religious vow (*nerttikatan*) remains one of the most marked features of South Indian religious practice in Singapore. Every Hindu makes the religious vow. Two occasions for votive behaviour - *timita* (a firewalking ceremony) and *tai pucam* (carrying kavatis in fulfilment of vows offered to Murugan) - are dominated by young people.<sup>186</sup>

### *Secularization*

The existence the major traditional religions as well as numerous temples, shrines, churches and mosques in the three societies seem to suggest that these societies are filled with the religious atmosphere. However, the existence of these religions and religious constructions serve more or less a background role in these societies only. Firstly, the government bodies in these societies are secular bodies. Religion and state are not closely related as in the past. Secondly, urbanization weakens the significance of Shinto, Buddhist and Hindu temples in people’s daily lives. Traditionally, these temples served local communities. As people migrate to cities, rural temples suffer from the lack of truly active parishioners. On the other hand, urban temples, being affected by the concept of serving local communities,

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<sup>186</sup> Lawrence A. Babb, “Hindu Mediumship in Singapore”, *Southeast Asian Journal of Social Sciences*, 2(1-2), 1974, 30 and “Pattern of Hinduism” in Hassan, ed., *op. cit.*, pp. 190-198; and *Singapore 1983*, pp. 10-11.

are slow to welcome the “newcomers”. Moreover, with the increase of one-couple households in cities, the younger generation is deprived of the opportunity of being influenced by the older generation in religious matters. This further enhances the secularization in urban areas.<sup>187</sup> Thirdly, as modernization and Westernization have speeded up after the War, the lack of change in doctrines may lead to a feeling that these traditional religions are obsolete.

The significance of the traditional religions has declined in the three societies. “The overall picture is one of almost total secularization,” Carlo Caldarola comments on Japan’s contemporary religious situation. According to a survey by F. M. Basabe on the religious situation in the 1960s in Japan, 82 per cent of the respondents claimed to have no religion at all. In the 1970s, roughly speaking, about 60 per cent or more of the urban population professed to be religiously indifferent, 20 per cent showed a negative attitude towards religion, and only about 20 per cent were believers.<sup>188</sup> Concerning Buddhism in contemporary Japan, Harumi Befu says, “Buddhism ... is still, by and large, regarded by the majority of Japanese as outmoded (and) a thing of the past.” Edwin Reischauer also regards Buddhism in Japan as “not for many a leitmotif in either their intellectual or emotional lives.”<sup>189</sup> Shintoism also suffers from “the loss of interest on the part of the population”. Edward Norbeck witnessed the decline of Shintoism in Japan during the period 1950-1965:

The local community was no longer a functioning corporate group; beliefs and custom concerned with agriculture and fishing had greatly weakened or disappeared; ... home worship of Shinto deities had become amusing superstitions.<sup>190</sup>

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<sup>187</sup> Norbeck, *op. cit.*, pp. 69-70 and Morioka, *op. cit.*, p. 37.

<sup>188</sup> Carlo Caldarola, “Japan: Religious Syncretism in a Secular Society” in Carlo Caldarola, ed., *Religion and Societies: Asian and the Middle East* (Berlin: Mouton Publishers, 1982), p. 650. See also Peter Berger, “Security: West and East” in *Cultural Identity and Modernization in Asian Countries: Proceeding in Kokugakuin University Centennial Symposium* (Japan: Institute for Japanese Culture and Classics, Kokugakuin University, 1983), p. 45.

<sup>189</sup> Befu, *op. cit.*, p. 99 and Reischauer, *op. cit.*, p. 217.

<sup>190</sup> Norbeck, *op. cit.*, pp. 58-61.

Although Christianity has exerted some influence, Christians are still a minority in the society. New religious sects flourish though, they are essentially secular in spirit and are more concerned with this-worldly well-being.

Taoism in Singapore is "little more than a series of association of professional priests attached to different systems," says Majorie Topley.<sup>191</sup> Buddhism in Singapore is regarded as not progressive. "Qualified Buddhist teachers and leaders are few. Fewer still are those who are prepared to come out into the open to propagate the teachings."<sup>192</sup> As mentioned above, Hinduism has had to undergo adjustments in order to survive. This indicates the decline of religious influence in the daily lives of its followers, as duality exists between their home and the outside world.

It is not difficult to imagine that traditional religions suffer from the same fate in Hong Kong. "Ours, we hear," says Paul Clasper, Dean of St. John Cathedral of Hong Kong, "is a city where the venerable Chinese values of Taoist simplicity could never survive. Both Buddhism and Christianity have been totally taken over by the Capitalist spirit."<sup>193</sup> Although Christianity is a "Western" religion, it is not immune from the challenge of a rapidly changing society. The adaptation of the churches to the changes in Hong Kong is regarded as slow.<sup>194</sup> Harold Naylor reports the decline of Christian influence:

On the other hand our Christian schools are not as strong as they seem. The last ten years have seen a large decrease in the number of missionaries in education. Secularization in our modern society has decreased the influence of religious teaching. The number of Christians in our schools is

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<sup>191</sup> Majorie Topley, "The Emergence and Social Function of Chinese Religious Association in Singapore", *Comparative Study and History*, 3(3), 1961, 292.

<sup>192</sup> Henry Hwee-Tiang Lau, "Buddhism and Youth in Singapore", *Ching Feng*, 16(2), 1973, 103. Moreover, Buddhists comprised 54 per cent of the population in 1973, according to a survey by Peter Chen. However, in 1980, according to Robert Woodrow, the proportion was only 26.5 per cent. If the two figures are compatible, the proportion of Buddhists to the total population was reduced by half within the last decade. See Vivienne Wee, *op. cit.*, p. 181 and Woodrow, *op. cit.*, p. 31.

<sup>193</sup> Paul Clasper, *The Persistence of Religious Man in an Urbanized World*, Unpublished Occasional Paper (Hong Kong, 1984), p. 5.

<sup>194</sup> Philemon Yuen-Wan Choi, *The Changing Faces of Religion and its Future in Hong Kong*, Unpublished Occasional Paper (Hong Kong, 1984), p. 2.

decreasing.<sup>195</sup>

In face of the general decline of religious influence in the three societies, secularization seems to be the common trend. Should there be any attempt to reverse this secularizing trend, existing religions must undertake drastic changes in doctrines, appeal, organization, style of religious performance, and social involvement.<sup>196</sup>

## C. The Political Environment

### 1. Japan

The Japanese political tradition is unique in the sense that there was only one dynasty and there has been no violent revolution to replace the dynasty throughout the 2,000 years and more of Japanese history. The political heritage of Japan is mainly characterized by Chinese influence and feudalism. In the 7th and 8th centuries, centralization was achieved and there emerged a bureaucracy in an urban setting, which formed the court aristocracy which surrounded and supported the throne. Although there was no concept of "democracy", there were high standards of honesty and efficiency in political administration. The Confucian advocacy of the threefold function of the government - to increase the people, to enrich them, and to enlighten them - was the norm among the officials. Centralization, bureaucracy, conservatism, and government efficiency in political administration were thus developed under Chinese influence.<sup>197</sup>

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<sup>195</sup> Harold Naylor, "Some Christian Thrust for Better Schools and Community", *Ching Feng*, 18(2-3), 1975, 188.

<sup>196</sup> "The future validity or debility of the religious system may rest in its ability to perform a useful role for the ultimate structural unit of a fragmented society, the individual." See John T. Myers, "Traditional Chinese Religious Practices in an Urban-Industrial Setting: The Example of Kwun Tong" in Ambrose Y. C. King and Rance P. L. Lee, eds., *Social Life and Development in Hong Kong* (Hong Kong: The Chinese University Press, 1981), p. 287.

<sup>197</sup> Chitoshi Yanaga, *Japanese People and Politics* (New York: John Wiley and Sons, 1956), pp. 23-25 and Reischauer, *op. cit.*, p. 238.

As the court aristocracy began to be corrupt and inefficient, feudalism emerged in the late 12th century. The political order was dominated by the samurai - military retainers. Their code of ethics - *Bushido* or the Way of the Samurai - was accepted by all classes of people. In the main, the code consisted of moral precepts derived from Buddhism, Confucianism and Shintoism. Courage, honour, fidelity, benevolence, decorum, frugality, reverence, loyalty and filial piety were emphasized as the attributes of the samurai. The process of unification of Japan in the late 16th and 17th centuries marked the demise of the samurai and they began to live on stipends. With the launch of the new Meiji government in 1868, which ended feudalism, the samurai were absorbed into the new prefectural and central government bureaucracy. Hence they were transformed from warriors into bureaucrats. The influence of those ex-samurai was strong in society, and "the personal ties, a sort of *esprit de corps* stemming from a common background and a feeling of affinity served as a strong catalyst in the building of a new Japan."<sup>198</sup>

Due to the modernization policies of the Meiji government, Japan was increasingly exposed to Western influence in the development of legal, political and economic ideas and institutions. The Continental civil law system was adopted, with a criminal code and a code of criminal procedure modelled on the French ones and the commercial code was patterned after the German model. The Court of Administrative Litigation was adopted from the French judicial organization, and the local government system and the police system were German-inspired. Moreover, Japan borrowed the Parliamentary system from Great Britain and the national banking system from the United States. These changes in the political and administrative systems marked Japan's first steps towards modern political development.<sup>199</sup>

The defeat in World War II led to further modernization and democratization in Japanese politics. The Supreme Commander for the Allied Powers, General

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<sup>198</sup> Yanaga, *op. cit.*, pp. 26-29 and Cyril E. Black et al., *The Modernization of Japan and Russia: A Comparative Study* (New York: The Free Press, 1975), pp. 45-46.

<sup>199</sup> Yanaga, *op. cit.*, p. 29.

MacArthur imposed a constitutional revision on Japan in 1946. On 3rd May 1947, this so-called MacArthur Constitution was implemented, as promulgated by the Emperor. This new constitution redefined the emperor's position as derived from the people with whom resides sovereign power, the diet as the highest organ of state power, and the supreme court as the the highest judicial power; and it introduced an extensive bill of rights including the right of life, liberty, and academic freedom.<sup>201</sup> To a large and surprising extent, these occupation-sponsored reforms have been accepted, and they continue to provide the framework of Japanese political life.<sup>202</sup>

At present, the National Diet is still “the highest organ of State power” and “the sole law-making organ of the State”. It has the power to select the Prime Minister. The Prime Minister is selected from among the members of the Diet, specifically from the Lower House if there is disagreement with the Upper House, and he in turn then selects the ministers of his cabinet and the other appointed officials. There are 252 members in the Upper House of Councillors and 511 members in the Lower House of Representatives. The members of both Houses, as representatives of all the people, should be elected members. The term of office of the members of the Lower House is four years, but the Lower House may be dissolved before that term is ended, in which case a general election must be held within forty days. The term of members of the Upper House is six years, with half of the seats being contested every three years. However, the Upper House cannot be dissolved. The Lower House is the more powerful one. It controls the budget and approves treaties with foreign powers. Moreover, a bill passed by the Lower House but rejected by the Upper House can still become law if passed a second time by a two-third's majority of the Lower House.<sup>203</sup>

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<sup>201</sup> See Burks, *op. cit.*, pp. 123-124 and Mark Gayn, “Drafting the Japanese constitution” in J. Livingstone, J. Moore and F. Oldfather, eds., *Postwar Japan: 1945 to the Present* (New York: Pantheon Books, 1973), pp. 19-23.

<sup>202</sup> Ian Grosart, “Japan: Modernization and Continuity, 1868-1947” in Roger Scott, ed., *The Politics of New States: A General Analysis with Case Studies from Eastern Asia* (London: George Allen and Unwin, 1970), p. 65.

<sup>203</sup> Graham Healey, “Politics and Politicians” in Howard Smith, ed., *Inside Japan* (London: British Broadcasting Corporation, 1980), pp. 156-157 and Cowen and McLean, *op. cit.*, p. 219.

At the regional level, Japan is divided into 46 prefectures which are further divided into 3,256 municipalities, comprising 645 cities, 1,985 towns and 626 villages. Each prefecture, city, town and village also has an assembly of representative elected by the same franchise as in national elections. Local governments are responsible for the posts of prefectural governor and municipal mayor, both being elective. They enjoy considerable autonomy but are in fact much influenced by the central authorities. Local legislation is often modelled on Tokyo: governors and mayors held offices in the capital and spend much time there negotiating with the central government.<sup>204</sup>

Political parties reappeared as a result of the abrogation of all restrictions on the freedom of thought, religion, assembly, association, speech, and press by the Supreme Commander for the Allied Powers (SCAP)<sup>205</sup> By 1945, there had emerged five parties: the Liberal Party, the Democratic Party, the Social Democratic Party, the Japanese Communist Party, and the Cooperative Party. From 1946 to 1949, the multi-party system was in reality built around three: the Liberals, the Democrats and the Socialists or Social Democrats.<sup>206</sup> In October 1955, the Socialists reunited after four years of conflict and separate existence, whilst the two conservative parties merged together to form the Liberal-Democratic Party. Hence a two-party system seemed to be developing. However, in 1960, a group broke away from the Socialist Party forming the new Democratic Socialist Party. In that year, three new parties were also formed: the Komeito (Clean Government Party), the New Liberal Club (NLC), and the United Social Democratic Party (USD).<sup>207</sup>

The LDP, as a conservative party, has been ruling Japan for about thirty

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<sup>204</sup> Cowen and McLean, *op. cit.*

<sup>205</sup> Toshio Nishi, *Unconditional Democracy: Education and Politics in Occupied Japan 1945-1952* (Stanford: Hoover Institution Press, 1982), p. 85.

<sup>206</sup> Robert A. Scalapino and Junnosuke Masumi, *Parties and Politics in Contemporary Japan* (Berkeley and Los Angeles: University of California Press, 1962), pp. 30-36.

<sup>207</sup> Healey, *op. cit.*, pp. 165-166 and Hugh Borton, "Politics and the Future of Democracy in Japan" in Hugh Borton et al., ed., *Japan Between East and West* (New York: Harper and Brothers, 1957), pp. 19-21.

years. Its policies are mainly (1) to create a democratic order in Japan with higher living standards by reforming existing institutions in line with the basic principles of democracy; (2) to strive for improved international relations on the basis of universal justice, peace and freedom, and the strengthening of a self-supporting and independent Japan; and (3) to ensure economic and social stability by carrying out properly formulated plans consistent with individual initiative and free enterprise, and to serve the public interest.<sup>208</sup>

Because of the stress on economic growth - "A Bright Japan, An Abundant Life" - the party has very close ties with business, from which it derives most of its funds. Hence it is even criticized as "only a party of business". The bureaucracy, the party and business form a triune relationship. Many of the conservative politicians have entered politics after careers in government service, and many of them have business backgrounds. On the other hand, many of the senior bureaucrats who do not take part in politics on retirement from the civil service go into industry and commerce.<sup>209</sup> However, it should be noted that big business is not the sole supporter of the LDP. The party also gains support from the large rural population because of its persistent assertion of traditional values and the personal influence of the "powerful men" in their hamlets.<sup>210</sup> As Japanese voters are more concerned with a candidate's personal quality and personality, the personal influence of these "powerful men" in hamlets is particularly significant in gaining rural support.<sup>211</sup>

The Socialists have been the major and most effective opponents of the LDP. In June 1947, the first Socialist government was formed in Japan's history. However, the

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<sup>208</sup> Japan. Public Information and Cultural Affairs Bureau, *The Japan of Today* (Japan: Ministry of Foreign Affairs, 1962), pp. 26-27.

<sup>209</sup> Healey, *op. cit.*, pp. 164-165 and Burks, *op. cit.*, pp. 139-140.

<sup>210</sup> R. P. Dore, *Land Reform in Japan* (London: Oxford University Press, 1959), pp. 412-418.

<sup>211</sup> Badley M. Richardson, *The Political Culture of Japan* (Berkeley: University of California Press, 1974), pp. 113-135. "A large proportion of Japanese voters, however, say that it is the quality of the candidate, rather than his party affiliation, that determines which way they cast their votes. This is especially true in local elections. Candidates often have no formal party affiliation in elections at the village or town level, although party endorsement does become more important at higher levels. His standing in the community from which he looks for his support is therefore of particular importance to the Japanese politician." See Healey, *op. cit.*, pp. 172-173.



government failed to cope with severe economic recession and a series of scandals. Since then, the Japanese Socialist Party (JSP) has never achieved power again. The primary aim of the JSP is to create a socialist society in Japan through a peaceful revolution. It urges the withdrawal of all U.S. military forces from Japan and a neutralist policy, with Japan's security and peace in East Asia maintained through a treaty including Japan, the U.S., the U.S.S.R. and China. It has been observed that the JSP, in comparison to the LDP, has been more wordy, theoretical, and more intensely concentrated on issues of foreign policy and security.<sup>212</sup> It has had no clear tactical policy for gaining the support of farmers nor a clear policy for agriculture. Hence, it loses the support of a large proportion of the agrarian population.<sup>213</sup>

In 1980, the LDP gained 47.90 per cent of votes in the General Election, while the JSP gained 19.31 per cent. The remaining votes were divided among the other parties. In the House of Representatives, the LDP had 284 seats, which comprised 55.6 per cent of all seats; and the JSP had 107 seats, comprising only 20.9 per cent. However, there is a tendency for other parties to gain significance, as the proportion of the popular vote won by the LDP and the JSP together fell from 85.12 to 67.21 per cent during the period 1960-80.<sup>214</sup>

Democratization in Japan is mainly a postwar development. The effect of democratization is seen in the increasingly political involvement in voting. Also, there is a development of high levels of instrumental expectation - wanting something from politics - especially in the rural districts. This development of instrumental expectation is sustained by the special character of rural community life and leadership. However, it is difficult to conclude that Japan's democracy is identical with Western democracy, and the country has been regarded as "partially democratized" only. For example, attitudes of formalism (voting out of duty and passivity) and

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<sup>212</sup> Japan. Public Information and Cultural Affairs Bureau, *op. cit.* and Burks, *op. cit.*, p. 145.

<sup>213</sup> Dore, *op. cit.*, p. 445.

<sup>214</sup> Healey, *op. cit.*, pp. 165-167.

ambivalence (with both optimism and pessimism towards politics) can be found among voters. Moreover, the conservative government has tried to develop more centralized control in its administration. One of the targets is education. Since the fifties, the conservative government has tried to increase the power of the Ministry of Education in the supervision of local schools, curricula and textbooks. Of course, every attempt to increase its power has aroused a strong opposition.<sup>215</sup>

## 2. Singapore

Singapore was a settlement and port of call disputed by the rulers of Java and Siam for its strategic position before the 19th century. In 1819, Stamford Raffles founded Singapore, and it was combined with Malacca to form the Straits Settlements in 1826. It was administered by the East India Company until 1867 when it became a crown colony directly under the British Colonial Office. Occupied by the Japanese during 1942-1945, Singapore became a separate colony after the war; under British rule for 140 years, Singapore became one of the constituent states of the Federation of Malaysia in 1963. However after two years, Singapore separated from Malaysia as a result of political differences and became an independent and sovereign State.<sup>216</sup>

Like Japan, Singapore has adopted a parliamentary system of government based on the British model. However the Parliament in Singapore is unicameral.<sup>217</sup>

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<sup>215</sup> Richardson, *op. cit.*, pp. 241-243. "However, it would be naive to assume that in the brief space of less than seven years the basic character, ideas, and attitudes of the Japanese people, or their institutions or way of life, can be altered so radically as to produce overnight a democratic system of government." See Yanaga, *op. cit.*, p. 8. Concerning the ambivalent attitudes among the Japanese voters, Richardson reported his studies as follow: "On the one hand, majorities of voters in the early 1960s reported that they believed in the effectiveness of ordinary people's vote or that interests in politics act as a restraint on the conduct of political affairs ... On the other hand, Japanese voters were generally much less optimistic when other kinds of assessments of politics were concerned." See Richardson, *op. cit.*, pp. 231-232.

<sup>216</sup> Singapore. Ministry of Culture, *Singapore Facts and Figures 1967* (Singapore: Government Printing Office, 1967), pp. 3-5 and Cowen and McLean, *op. cit.*, pp. 459-460.

<sup>217</sup> A unicameral parliament is adopted so that "there is no upper house to dilute the authority of

The Parliament at present consists of 79 members elected from single-member constituencies by a simple majority vote, and it sits for five years unless dissolved by the President, in which case a General Election must be held within three months.<sup>218</sup>

The President is the head of the State, elected by the Parliament for a term of four years. His functions are largely symbolic and ceremonial. The head of the government is the Prime Minister, officially appointed by the President following a majority vote of the Parliament. On the advice of the Prime Minister, the President also appoints other ministers from among the members of the Parliament to form a Cabinet. However the Prime Minister and the ministers composing the Cabinet must be elected members of the Parliament and are responsible collectively to the President. At present, the Cabinet comprises the Prime Minister and 12 ministers; each of these ministers is in charge of a major government department.<sup>219</sup>

Parliamentary sessions are held in Malay, Mandarin, Tamil or English with simultaneous translation provided. The conduct of parliamentary business is governed by rules of procedure adapted from the House of Commons at Westminster. Also, based on the Westminster model, Singapore's legislature is the supreme law-making authority. In practice, most bills are prepared by the Prime Minister's Office or in the departments concerned. Besides general policy formation and coordination, the Prime Minister's Office also has other functions such as the supervision of elections, investigation of corrupt practices, religious affairs, national honours and awards, the use of the national flag and anthem, the appointment of Justices of the Peace, and control of the Citizens Consultative Committees.<sup>220</sup>

The Citizen's Consultative Committee (CCC) was established in 1966. CCCs

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the popularly elected legislature." See Dick Wilson, *East Meets West: Singapore*, revised by Zainul Abidin Rasheed (London: Oxford University Press, 1975), p. 85.

<sup>218</sup> *Singapore Facts and Pictures 1985*, p. 19.

<sup>219</sup> Geiger and Geiger, *op. cit.*, pp. 217-218.

<sup>220</sup> *Ibid.* and *Singapore Facts and Pictures 1985*, p. 20 & 26, and C. M. Turnbull, "Constitutional Development: 1819-1968" in Ooi Jin-Bee and Chiang Hai-Ding, eds., *Modern Singapore* (Singapore: Singapore University Press, 1969), p. 193.

can be found in every district, functioning as “grass-root” committees. They were established to be the links between the government and the people and also as a strategy to “expose the lies spread by Communists and their agents” that the PAP government did not care about public opinion.<sup>221</sup> In the official description, the specific functions of the CCCs are to transmit information, make recommendations on the needs of the people to the government, and keep the people informed of government actions and policies. Also, they should promote good citizenship amongst the people of Singapore.<sup>222</sup> The committees are served by full-time secretaries who are civil servants reporting to the Prime Minister’s Office. In Singapore, there is a Public Service Commission responsible for the appointment, promotion, transfer, and discipline of public officers. There is also the Presidential Council to review existing and proposed legislation ensuring that it does not violate constitutional liberties. Moreover, the Council tries to eliminate any sort of racial or religious discrimination. Bills passed by the Parliament should be sent to the Council before they are presented to the President for assent.<sup>223</sup>

Singapore’s post-war politics have been characterized by the effort to establish a Singapore identity. Since independence, the Singapore government has tried to unite the ethnically and religiously heterogenous population and create a unique identity for them - to be a Singaporean. Although much affected by the British models of administration and the Chinese culture, Singapore has tried to achieve a distinctive identity of its own, without being affiliated to either State.<sup>224</sup>

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<sup>221</sup> *Strait Times*, 25 Nov 1963, cited by Chan Heng Chee, *The Dynamics of One Party Dominance: The PAP at the Grass-Roots* (Singapore: Singapore University Press, 1976), p. 133.

<sup>222</sup> *The Citizen’s Consultative Committee Rules, Reprint of CCC Rules with Amendments 1967*, 2(a) and (b), cited by *ibid.*, p. 136.

<sup>223</sup> Geiger and Geiger, *op. cit.*, p. 218.

<sup>224</sup> Singapore’s independence marked a clear break from the British rule. With regard to the Chinese link, Prime Minister Lee Kuan Yew asserted in 1967, “Slowly the world will learn that the Lees, the Tohs, the Gohs, the Ongs, the Yongs, the Lims in Singapore, though they may look Chinese and speak Chinese, they are different. They are of Chinese stock and not apologetic about it. But most important, they think in terms of Singapore and Singapore’s interests, not of China and China’s interests.” Cited by T. J. S. George, *Lee Kuan Yew’s Singapore* (London: Andre Deutsch Ltd., 1973), p. 16. See also Lee Kuan Yew, *Battle for Merger* (Singapore: Government Printing Office, 1967), pp. 10-11.

To enhance Singapore's independence and uniqueness and to reduce the anxieties of being a newly formed "small" State, in 1967 Singapore combined with Indonesia, Malaysia, the Philippines and Thailand to form the Association of South East Asian Nations (ASEAN). ASEAN thus forms a regional "unity" *vis-a-vis* both the Asian powers (Japan, China and India) and the non-Asian powers involved in the region (the U.S.A., the Soviet Union, Australia and West Europe). As a regional grouping, it is comparable to others such as SEATO, ASA, Maphilindo, and ASPAC.<sup>225</sup>

Like the Japanese government, the Singaporean government has laid great stress on the economic development of the State. Economic development is seen as closely associated with internal stability and international competitiveness<sup>226</sup> Moreover, the government believes that modernization and industrialization of the State can only be achieved through government participation and direction in the field of industry and commerce.<sup>227</sup> Hence, although the government does not participate directly in production, it "functioned robustly as an entrepreneur throughout the 1960's, adjusting the economy and mapping out strategies to meet changing circumstances." And it perceives its role in the industrialization process "as the cultivation of a political and economic environment conducive to private enterprise".<sup>228</sup> It is thus not uncommon to find that the government uses the State's economic growth as its major "weapon" to demonstrate its achievements.

Since the assumption of self-government, Singapore has been ruled by only one party - the People's Action Party (PAP). The PAP has been so strong and dominant that all the other parties are practically of no significance.<sup>229</sup> In 1972, although 30

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<sup>225</sup> Lau Teik-Soon, "Singapore and the World" in *Towards Tomorrow*, pp. 134-141 and Wilson, *op. cit.*, p. 239.

<sup>226</sup> Lau, *op. cit.*, pp. 134-135.

<sup>227</sup> A. Rahim Ishak, "Entering the Twentieth Year" in *Towards Tomorrow*, p. 152.

<sup>228</sup> Howe Yoon-Chong, "The Port of Singapore" in *Towards Tomorrow*, p. 112. Lee Soo-Ann listed eight wholly-owned government enterprises. The total equity investment in these enterprises amounted to \$70 million at the end of 1969. See Lee Soo-Ann, "The Role of the Government in the Economy" in You and Lim, eds., *op. cit.*, pp. 91-93.

<sup>229</sup> During the first decade of the post-war period, the major parties other than the PAP were

per cent of the ballots were cast for opposition candidates, none gained a seat in the Parliament.<sup>230</sup> In 1984, despite the presence of 19 political parties apart from the PAP, the PAP won 77 of the 79 seats. Of the two remaining seats, one went to the Worker's Party and the other to the Singapore United Front who nevertheless did not take the seat.<sup>231</sup>

The PAP government has systematically reduced the power and influence of the opposition parties, especially the Communist (or pro-Communist). The Preservation of Public Security Ordinance gave the Governor-in-Council unlimited power to arrest, detain, and deport an individual without trial. Moreover, the Minister of Home Affairs is empowered to prohibit the printing, publication, sale, issue, circulation, or possession of a document or publication which he regards as prejudicial to the national interest, public order, or security of Singapore. Newspapers and other periodicals must renew their licenses annually. Publishers and educational institutes (including the universities) are closely supervised. In 1971, three newspapers were forced to close. The PAP government also controls the trade unions - the labour movement. Under the 1959 Trade Union (Amendment) Ordinance, the authorities were empowered to refuse registration. Subsequently unions controlled by opposition groups or Communists have had their registration cancelled or been dissolved. Workers are then attached to government controlled trade unions.<sup>232</sup>

The PAP government considers that "controlled democracy" is necessary for "an opposition party consisting of bums, opportunists, and morons can endanger

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Malaysian Democratic Union, Singapore Progressive Party, Singapore Labour Party and Singapore Labour Front. See Yeo Kim-Wah, *Political Development in Singapore 1945-1955* (Singapore: Singapore University Press, 1973), pp. 88-130. In the 1959 election, there were 10 parties but the major parties were Singapore People's Alliance (a reorganization of the Labour Front), Liberal Socialists (an alliance of the Progressives and the Democrats), UMNOMCA (a sister to Malaya's ruling party). See Robert E. Gamer, "Parties and Pressure Groups" in Ooi and Chiang, eds., *op. cit.*, p. 201. Up to 1980, there were 20 parties registered including the PAP. See *Singapore Facts and Pictures 1985*, p. 38.

<sup>230</sup> Geiger and Geiger, *op. cit.*, p. 220.

<sup>231</sup> *Singapore Facts and Pictures 1985*, p. 19.

<sup>232</sup> H. C. Chan, *op. cit.*, p. 201-206; George, *op. cit.*, pp. 110-131; and Alex Josey, *Lee Kuan Yew: The Struggle for Singapore* (Sydney: Angus and Robertson, 1974), pp. 228-237.

democracy and bring about chaos, disorders, and violence. This has happened and is happening in many countries. The same can happen under a one-party parliament of bums and crooks.”<sup>233</sup> Further, there is an advantage of a one-party government as exemplified in its success in bringing about economic growth in Singapore:

Equally a one-party parliament can safeguard democracy and bring about peace, progress, and prosperity. Singapore has had a one-party parliament since 1968. If you forget theory and look at the hard facts you will discover that though the People’s Action Party has been in power for 12 years, its greater achievements in promoting the welfare of the people were under a one-party parliament.<sup>234</sup>

After all, the success of the PAP to maintain a one-party government for two decades is also a result of Chinese cultural tradition, which accepts an authoritarian government. As long as the government is a paternalistic and benevolent one which can maintain peace, prosperity, and material development, people seem to accept the *status quo*.<sup>235</sup>

Although there can be a certain degree of freedom in discussing politics in the State, the new political culture of Singapore is one that discourages conflict, confrontation and bargaining, and the communication channels work only one way, from top down. As a result, there are three distinct features of the State, as suggested by H. C. Chan. First, the power of the bureaucratic sector tends to increase because of the rise of complex organizations and the proliferation of developmental activities in the society, particularly those undertaken by government enterprises. Second, the importance of the elected politician’s role *vis-a-vis* the bureaucrat becomes diminished in a non-competitive political arena. Third, the style of government reduces the importance of politics and places trust in experts and expertise for planning and implementation.<sup>236</sup>

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<sup>233</sup> See *The Mirror*, 7(34), 23 Aug 1971, cited by H. C. Chan, *op. cit.*, p. 228.

<sup>234</sup> *Ibid.*

<sup>235</sup> H. C. Chan, *op. cit.*, pp. 230-231.

<sup>236</sup> Chan Heng Chee, “Political System and Political Change” in Hassan, ed., *op. cit.*, pp. 43-44. and “The Emerging Administrative State”, in Saw Swee-Hock and R. S. Bhathal, eds., *Singapore*

### 3. Hong Kong

Hong Kong started its colonial history under the Convention of Chuenpi in 1841, by which Hong Kong Island was ceded to Britain. This convention was reaffirmed in 1843 by the Treaty of Nanking. Under the Convention of Peking in 1860, Kowloon Peninsula up to Boundary Street as well as Stonecutter Island were ceded too. By the convention of Peking in 1898, the New Territories, which consist of the area north of Boundary Street up to the Shum Chun River and 235 islands, were leased for 99 years until 1997.<sup>237</sup> Although China requested the United Nations to delete Hong Kong and Macao from the list of colonial territories in March 1972, Hong Kong has remained under British rule since 1841. It has been agreed that the British rule in Hong Kong will continue until 1997.<sup>238</sup>

The present constitutional structure of Hong Kong is a typical colonial one.<sup>239</sup> All fundamental policies concerning Hong Kong's administration are decided by the Commonwealth Office in London. However in practice, Hong Kong is administered by the Hong Kong government, under the authority of the Governor. The powers of the Governor are basically derived from the Letters Patent, Royal Instructions and the laws of the Colony. He is the representative of the Queen in Hong Kong. He is the chief executive of the Government, having "ultimate direction of the administration" and "major influence over the direction of affairs". In addition, he is the titular Commander-in-Chief. In theory, he can take all kinds of action for the peace, order and security of Hong Kong, provided his actions are not contrary to the politics of the British government.

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*Towards the Year 2000*, (Singapore: Singapore University Press, 1981), pp. 10-11.

<sup>237</sup> G.B. Endacott, *A History of Hong Kong* (London: Oxford University Press, 1958), pp. 17, 22, 110 & 262.

<sup>238</sup> Hsiu-Chi Kuan, "Political Stability and Change in Hong Kong" in Lin, Lee and Simonis, eds., *op. cit.*, p. 148 and "Joint Declaration of the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the People's Republic of China on the Question of Hong Kong" in *A Draft Agreement Between The Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the People's Republic of China on the Future of Hong Kong* (London: HMSO, 1984), p. 11.

<sup>239</sup> Ambrose Yeo-Chi King, "Administrative Absorption of Politics in Hong Kong: Emphasis on the Grass-roots Level" in King and Lee, eds., *op. cit.*, p. 130.



The Constitution also provides the Governor with two consultative Councils - the Executive council and the Legislative council - for the formulation of policies and laws. As head of the government, the governor is Chairman of both Councils. He is required by the Royal Instructions to consult the Executive Council on all important policy matters. However, if he decides to disregard the advice of the majority of members, he has to report his reasons to the Secretary of State. The primary function of the Legislative Council is the enactment of laws.

In the Executive Council, there are at present 4 ex-officio members - the Chief Secretary, the Commander British Forces, the Financial Secretary and the Attorney General. There are 12 other appointed members, 10 unofficial and 2 official. Three of the ex-officio members (except the Commander British Forces) of the Executive Council also hold seats in the Legislative Council. In addition, there are 10 official members, 22 appointed members and 24 elected members.<sup>240</sup> The unofficial members are appointed to the Councils to keep the Governor informed of public opinion. In practice, these members are mainly chosen from a list of prominent and wealthy citizens including businessmen, industrialists and members of the professions. As these nominated people are mainly of the upper class, they are not considered by the public to be truly representative of the majority of the population.

There is no voting in the Executive Council meetings, and the Governor makes the final decisions. All its meetings are closed to the public. On the other hand, decisions at the Legislative Council are subject to voting, but the official members are bound to vote as directed by the Governor. However, in fact, the Governors have tried to avoid having any contested votes at all.<sup>241</sup>

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<sup>240</sup> *Hong Kong 1987: A Review of 1986* (Hong Kong: Government Printer, 1987), p. 18 and *Green Paper: The 1987 Review of Developments in Representative Government* (Hong Kong: Government Printer, 1987), p. 21.

<sup>241</sup> Aline K. Wong, *The Kaifong Associations and the Society of Hong Kong* (Taipei: The Orient Cultural Service, 1972), pp. 9-10 and Norman J. Miners, *Hong Kong Government and Politics* (Hong Kong: Oxford University Press, 1982), p. 129.

Due to the agreement between the British and Chinese governments, Hong Kong will be restored to China on 1st July 1997. Hong Kong will then become the Hong Kong Special Administration Region under Article 31 of the Constitution of the People's Republic of China. At that time, "the Hong Kong Special Administrative Region will be vested with executive, legislative and independent judicial power, including that of final adjudication" for 50 years.<sup>242</sup> To prepare for the change in 1997, when the people of Hong Kong will be self-governing for 50 years, the present Hong Kong government has decided to develop "representative government" in Hong Kong. In 1985, among the 48 members in the Legislative Council, there were 13 official members, 23 appointed unofficial members, and also 12 elected unofficial members. In 1986, elected members increased to 24. Although there was no constitutional change in the Executive Council in 1985, it is hoped that the unofficial members will be given more power and authority to control and supervise the policies and the operations of the government through some reforms of the ministerial system in the future.<sup>243</sup>

Before the constitutional change in the Legislative Council, the only Council with elected unofficial members was the Urban Council. The Urban Council was created from the Sanitary Board in 1935. Its main function is to maintain public health. Hence it makes by-laws regarding public health and sanitation. However, these by-laws have to be approved by the Legislative Council. The Council is also concerned with the work of the Resettlement Department in the clearance of slums and resettlement of squatters. The Council executes its policies through the Urban Services Department. At present, there are 30 members in the Council: 15 elected from district constituencies and 15 appointed by the Governor.<sup>244</sup> The Urban Council controls less than 4 per cent of government spending, and the scope of power is very limited. Hence many people do not participate in the election of

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<sup>242</sup> "Joint Declaration", *op. cit.*, pp. 11-12.

<sup>243</sup> *White Paper: The Future Development of Representative Government in Hong Kong* (Hong Kong: Government Printer, 1984), p. 10 and *Hong Kong 1987: A Review of 1986*, p. 18.

<sup>244</sup> *Hong Kong: 1985: A Review of 1984* (Hong Kong: Government Printer, 1984), p. 56 and Wong, *op. cit.*, p. 11.

the Council members. Until 1979, the highest turnout was 38.7 per cent in 1967. In 1977, of the 37,174 electors on the register, only 7,308 cast their votes.<sup>245</sup>

A new Regional Council was established in 1986 to provide more efficient services for the increasing population in the new towns. The Regional Council was also introduced to correct the anomalous situation that the Urban Services Department provides services to the urban areas under the direction of the Urban Council whilst the New Territories Services Department provides service to the New Territories under the direction of the central government. The functions of the Regional Council are similar to those of the Urban Council but it caters for areas outside the aegis of the Urban Council. Among the 36 members in the council, 12 are elected directly and constituency-based and 12 are appointed. Each of the nine district boards in the New Territories will elect among themselves one representative to the Council. Three representatives of the Heung Yee Kuk (the Chairman and the two Vice-Chairmen) are ex-officio members of the Regional Council.<sup>246</sup>

In addition to the Executive and Legislative Councils, the two main advisory and policy- and law-making Councils, there is also a number of advisory bodies which help in the process of decision-making. These are statutory bodies set up by ordinances, *ad hoc* committees and commissions of inquiry, to which unofficial members are also appointed. The existence of these bodies is a symbol to demonstrate the intention of the Governor to achieve a certain extent of "representativeness" in decision-making.<sup>247</sup> As Norman Miner says: "Thus they can freely admit that government is not 'by the people'; while at the same time they are able to claim that

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<sup>245</sup> Philip Geddes, *In the Mouth of the Dragon: Hong Kong - Past, Present and Future* (London: Century Publishing Co., 1982), p. 70; Miners, *op. cit.*, p. 223; and Peter Harris, *Hong Kong: A Study in Bureaucratic Politics* (Hong Kong: Heinemann Asia, 1978), p. 83.

<sup>246</sup> *Hong Kong 1987: A Review of 1986*, p. 22.

<sup>247</sup> See Wong, *op. cit.*, p. 10. Peter Harris says, "The Hong Kong political formula suggests the overwhelming acceptance of ascriptive representation of a society content to agree to allow spokesman to be active on their behalf.... The result is of course an almost totally interest-based society, a condition of 'representation without election', as Satori puts it." See Harris, *op. cit.*, p. 50 and also p. 83.

it is 'for the people' and so really satisfies the basic object of democracy.<sup>248</sup>

To extend the government to the grass-roots level, the government established the City District Officer (CDO) Scheme in 1968, after the 1966-1967 disturbances. In each of the ten districts there is a City District Office to which is assigned an administrative grade officer responsible for the welfare of the locality as affected by the overall policy of the central government. The officers have a wide range of duties, such as explaining government policies to the local people, advising on public opinion and local needs, arousing the interest and the participation of residents in the affairs of their district, and helping individuals with personal problems.<sup>249</sup> In addition, there is an office run by the unofficial members of the Executive and Legislative Councils - which is commonly referred to as the UMELCO office. It advises on the formulation of government policies and the enactment of legislation, and it considers complaints by members of the public against government departments. Since 1970, the office has been strengthened by the appointment of a senior officer, an Administrative Secretary.<sup>250</sup> An Independent Commission Against Corruption (ICAC) was established in 1974, occupying a unique position in the structure of the Hong Kong government. As the ICAC is independent of the Civil Service, the commissioner is directly responsible to the Governor. It investigates all cases of bribery and corruption and is responsible for reviewing procedures and administrative routines in government departments and public bodies so as to minimize corruption.<sup>251</sup>

As a colonial government, the Hong Kong government is a centralized and even an authoritarian one. The almost unlimited power of the Governor in theory enables him to be a despot if he so wishes, although in practice he seldom makes

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<sup>248</sup> Miners, *op. cit.*, p. 267.

<sup>249</sup> Kuan, *op. cit.*, p. 156.

<sup>250</sup> *Hong Kong 1970* (Hong Kong: Government Printer, 1970), p. 248 and *Hong Kong 1985: A Review of 1984*, pp. 55-56.

<sup>251</sup> *Hong Kong 1985: A Review of 1984*, pp. 220-222 and Miners, *op. cit.*, p. 110.

decisions which are strongly opposed by his Council members and public opinion.<sup>252</sup> The Hong Kong government shows its "benevolence" by applying "synarchical rule" - a joint administration shared by both the British rulers and non-British - and consultation in the process of decision-making. The Chinese unofficial members constituted less than 50 per cent during 1945-1950, but they have increased to 84 per cent since 1970. By these means, the government seeks to demonstrate its determination to "govern by discussions" and consultation. However, the government is criticized because the Chinese unofficial members are men of wealth and are drawn from the small circle of the elite in the Chinese community.<sup>253</sup> Moreover, consultation is also confined to the rich and those with professional expertise and is characterized by selectivity.<sup>254</sup> Although at present there are seven associations which are of a "political" nature and four of them are even registered as political parties, none of them has any real political significance. Strictly speaking, Hong Kong is an "administrative no-party state" and "a state without politics".<sup>255</sup> As a result of these factors and also because of the traditional Chinese attitude to politics - having full trust and confidence in the government and keeping away from government offices - there has been general political apathy in Hong Kong.<sup>256</sup>

Hong Kong will change its political status in 1997, when the Hong Kong people will be able to govern themselves during the "transitional period" of 50 years. At

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<sup>252</sup> The Financial Secretary in 1968 advocated the necessity of authoritarianism: "If people want consultative government, the price is increased complexity and delay in arriving at decisions. If they want speed of government, then they must accept a greater degree of authoritarianism." See *Hong Kong Hansard 1968*, p. 215, cited by John Rear, "One Brand of Politics" in Hopkins, ed., *op. cit.*, p. 93. Lennox A. Mills uses the term "benevolent despot" to describe the Hong Kong Governor as he is vested with power but still considers public opinion: "He is a benevolent despot who keeps himself well informed by compromise and persuasion rather than by insistence upon his legal authority." See Lennox A. Mills, *British Rule in Eastern Asia* (London: Oxford University Press, 1942), p. 396. Concerning the centralization of the Hong Kong government, see Joseph Y. S. Cheng, "The Trend of Hong Kong Citizens in the Right-Struggling Movement" (in Chinese), in Joseph Cheng, ed., *Essays on the Economics, Politics and Society of Hong Kong*, p. 145.

<sup>253</sup> King, *op. cit.*, pp. 130-132 and G. B. Endacott, *Government and People in Hong Kong 1841-1962* (Hong Kong: Oxford University Press, 1964), p. 229.

<sup>254</sup> Rear, *op. cit.*, pp. 96-97.

<sup>255</sup> King, *op. cit.*, pp. 136-137 and Harris, *op. cit.*, pp. 55 & 120.

<sup>256</sup> Siu-Kai Lau lists nine reasons for the political apathy in Hong Kong, see his "Utilitarianistic Familism: The Basis of Political Stability" in King and Lee, eds., *op. cit.*, pp. 196-197.

present, some seats of the unofficial members in the Legislative Council are open to election. Moreover, the Hong Kong born young people have more sense of belonging to this society, and as they are more educated and exposed to Western democratic influence, it is likely that they will become more active in participation in politics. N. J. Miners considers this a probable development:

It will be surprising if they do not go on to repudiate the conformist attitudes of their parents and demand a greater say in the process of government.... A survey of public opinion conducted in 1977 discovered that 50 per cent of those interviewed were in favour of having elected members in the Legislative Council and less than 3 per cent were opposed, while the rest were indifferent.<sup>257</sup>

Among the three societies, Japan's government and politics most clearly resemble the Western democratic style - with the existence of multi-parties and strong and clear opposition parties. Singapore is regarded as the most efficient and incorrupt State in post-war Asia. Although it is a one-party dominant administrative state, it makes an effort "to maintain the democratic system by trying to educate its electorate into an understanding of the real long-term challenges with which it has to grapple".<sup>258</sup> Hong Kong, however, is a "no-party administrative state", as it is still a colony. Nevertheless, Hong Kong is moving towards representative government as the seats of unofficial members in the Legislative Council are opened up to election.

Notwithstanding the different political nature of the three societies, they have at least three common characteristics. First, since the post-war period, the Singapore and Japan governments have been under the dominance of one party, and Hong Kong has been under one form of government. Moreover, all of them have more or less centralized governments. This is especially true of Hong Kong and Singapore. And Singapore is so authoritarian and centralized that its critics claim

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<sup>257</sup> Miners, *op. cit.*, p. 47.

<sup>258</sup> Wilson, *op. cit.*, p. 235.

that the present government is no different from colonial rule.<sup>259</sup>

Second, all the three societies have been influenced by both Chinese and Western political cultures. The present governments run their bureaucracies in Western style. Japan and Singapore adopt a parliamentary system, and Hong Kong is directly under British rule. On the other hand, according to the traditional Chinese culture, the people should trust their government and also be obedient to it as long as it is paternalistic and benevolent. Hence, people can tolerate a considerable degree of authoritarianism, provided that the government is “not too harsh”. This explains the dominance of one party or one form of government in the political arena for a long time. However, as the younger generation is more educated and more influenced by Western democracy, there will be a greater demand for political participation in the three societies.

Third, the governments of all of the three societies have close associations with the rich and the elites.<sup>260</sup> Who governs the three societies? It is sometimes said that it is the business people (and the professional elites) who “govern”. As the three societies place strong emphasis on economic development, it is not difficult to see the importance of giving business people considerable say, directly or indirectly, in the process of decision-making.

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<sup>259</sup> Chan, “The Political System and Political Change”, pp. 36 & 48.

<sup>260</sup> For Hong Kong, see Geiger and Geiger, *op. cit.*, pp. 141-143. For Singapore, see Shee Poon-Kim, “Political Leadership and Succession in Singapore” in Peter Chen, ed., *Singapore: Development Policies and Trends*, pp. 174-195. For Japan, see Healey, *op. cit.*, pp. 164-165.

## CHAPTER TWO

### BECOMING MODERN: FORCES OF CHANGE IN EDUCATION

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#### A. Becoming Modern: Japan, Singapore and Hong Kong

Although Japan, Singapore and Hong Kong have strong traditional cultures, with increasing international contacts and because they have embarked upon the process of modernization, all three are more and more characterized as modern societies. Japan was the first Asian country to achieve modernization and is considered the most advanced and modernized country in Asia.<sup>1</sup> Although less advanced than Japan, Singapore and Hong Kong have also achieved a certain degree of modernization.<sup>2</sup>

Modernization has a long history in Japan. Early in the 1860s, both leaders and opponents of the Tokugawa shogunates realized the need to build up a more unified and “modernized” state. Then came the famous Meiji period, which was characterized by the adoption of modernization as a means of self-improvement and advancement.<sup>3</sup> During the occupation after the defeat in World War II, Japan

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<sup>1</sup> Peter Chen classifies Japan as one of the highly “developed” countries in respect of modernization, whereas Singapore is only stepping from the “developing” stage towards the “highly developed” stage. See Peter S. J. Chen, “The Cultural Implications of Industrialization and Modernization: With Reference to Southeast Asia” in Rolf E. Vente and Peter S. J. Chen, eds., *Cultural and Industrialization: An Asian Dilemma* (Singapore: McGraw-Hill International Book Co., 1980), p. 120.

<sup>2</sup> S. S. Hsueh, “Some Reflections on Modernization in Southeast Asia” in Tham Seong Chee, ed., *Modernization in Singapore: Impact on the Individual* (Singapore: Singapore University Press, 1972), p. 26.

<sup>3</sup> Marius B. Jansen, “Changing Japanese Attitudes Towards Modernization” in Marius B. Jansen, ed., *Changing Japanese Attitudes Towards Modernization* (New Jersey: Princeton University Press, 1965), pp. 44 & 66.



was under strong Western influence. Some scholars even believe that it is this period that marks the “true modernization” of Japan.<sup>4</sup> Singapore and Hong Kong started their programmes of modernization under British rule. Since becoming an independent state, Singapore has sought to establish a modernized - technologically and institutionally advanced - state to overcome its smallness in size and to enhance its competitive ability in the world.<sup>5</sup> Although Hong Kong remains a British colony, under British influence, it has taken the same road of modernization.

### *Definitions of Modernization*

Modernization has been given a variety of definitions by scholars. For some, modernization is a synonym for economic development, industrialization, Westernization, or even urbanization. For instance, in “Changing Japanese Attitudes towards Modernization”, Marius Jansen uses the term Westernization rather than modernization throughout the essay.<sup>6</sup> Wilbert Moore defines modernization in terms of economic growth and concludes that “we may pursue the convention further and speak of the process of industrialization”.<sup>7</sup> When discussing the effects of urbanization on Philippine culture, Dominador Reyes regards an urbanized society as a “modern set-up”. And he closely relates the term “urbanization” to concepts such as industrialization and modernization.<sup>8</sup>

On the other hand, other scholars such as Reinhard Bendix and David Apter

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<sup>4</sup> See Burks, *op. cit.*, p. 127.

<sup>5</sup> David C. E. Chew, “A Human Interpretation of Singapore’s Economic Development” in *Towards Tomorrow: Essays on Development and Social Transformation in Singapore* (Singapore: National Trades Union Congress, 1973), pp. 117-118 and A. Rahim Ishak, “Entering the Twentieth Year” in *ibid.*, pp. 145-152.

<sup>6</sup> See Jansen, *op. cit.*, pp. 43-89.

<sup>7</sup> Wilbert E. Moore, *Social Change* (New Jersey: Prentice-Hall, 1974), p. 96. Myron Weiner also says, “Economists see modernization primarily in terms of man’s resources in order to bring about a marked increase in the growth of output per head of population.” See Myron Weiner, ed., *Modernization: The Dynamics of Growth* (New York: Basic Books, 1966), p. 3.

<sup>8</sup> Dominador O. Reyes, “The Role of Administration in the Industrialization Process to Minimize the Loss of Culture” in Vente and Chen, eds., *op. cit.*, pp. 172-3.

regard modernization as a distinct concept that can be separated from the above-mentioned terms. For Bendix, industrialization and its correlates are not simply tantamount to a rise of modernity at the expense of tradition. Many “modern” and “industrial societies” have “partial development” only, if the retaining of the traditions of these societies is taken into account. For him, modernization means social and political changes.<sup>9</sup> Apter considers modernization to be a result of commercialization rather than industrialization. Development, modernization, and industrialization can be placed in a descending order of generality in which modernization is a particular case of development and industrialization is a special aspect of modernization.<sup>10</sup> Norman Jacobs also distinguishes modernization from development. For him, there can be modernization without development.<sup>11</sup>

Nevertheless, no matter how different scholars view modernization, they seldom discuss the concept without making reference to the above-mentioned terms. The definition of modernization suggested by Almond and Coleman includes the following seven elements: (1) a comparatively high degree of urbanization; (2) widespread literacy; (3) comparatively high per capita income; (4) extensive geographical and social mobility; (5) relatively high degree of commercialization and industrialization within the economy; (6) an extensive and penetrative network of mass communication media; and (7) widespread participation and involvement of members of the society in modern and social economic process.<sup>12</sup> With reference to this suggestion, it may be said that the process of modernization accompanies, to a greater or less extent, industrialization, economic development, and urbanization. They are inter-related in the sense that some characteristics may occur earlier or later, while other characteristics may be more or less distinct in modernizing societies, according to

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<sup>9</sup> Reinhard Bendix, *Nation-Building and Citizenship: Studies of Our Changing Social Order* (New York: John Wiley & Sons, 1964), pp. 5-9.

<sup>10</sup> David E. Apter, *The Politics of Modernization* (Chicago: University of Chicago Press, 1965), pp. 43 & 67.

<sup>11</sup> Norman Jacobs, *Modernization Without Development: Thailand as an Asian Case Study* (New York: Praeger Publishers, 1971), pp. 10-11.

<sup>12</sup> See James S. Coleman, “The Political Systems of the Developing Areas” in Gabriel A. Almond and James S. Coleman, eds., *The Politics of Developing Areas* (Princeton, New Jersey: Princeton University Press, 1960), p. 532.

the specific situations of these societies.

Since modernization also involves social and political development, as suggested by Bendix, modernization can be understood in three inter-related dimensions. First, there is the technological and economic dimension. It includes industrialization, and the development of scientific technology and economic development. Second, there is the socio-political dimension. It refers to urbanization, widespread literacy, the existence of large-scale social institutions such as government and business, and the penetration of bureaucratic systems as organizational principles. Third, is the dimension of value-system. It is characterized by the dissemination of the idea of development among the people, rationalism, the predominance of universalism emphasizing performance rather than ascription, achievement-orientation, self-orientation, and secularity.<sup>13</sup>

Applying Alex Inkeles' classification, modernization in the first two dimensions - the technological and economic dimension as well as the socio-political dimension - is the change in "external condition", while the third dimension is related to change in the "internal condition".<sup>14</sup> Above all, modernization is accompanied by social change, as pointed out by Cyril Black.<sup>15</sup>

### *Technological and Economic Change*

Considering the three societies from the technological and economic dimension,

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<sup>13</sup> Adapted from Naofusa Hirai, "Traditional Cultures and Modernization: Several Problems in the Case of Japan" in *Cultural Identity and Modernization in Asian Countries*, p. 111. See also John W. Hall, "Changing Conceptions of the Modernization of Japan" in Jansen, ed., *op. cit.*, p. 19.

<sup>14</sup> "The characteristic mark of the modern man has two parts: one internal, the other external; one dealing with his environment, the other with his attitudes, values and feelings. The change in the external condition of modern man is ... urbanization, education, mass communication, industrialization, politicization ..." See Alex Inkeles, "The Modernization of Man" in M. Weiner, ed., *op. cit.*, p. 139.

<sup>15</sup> "Profound social changes have accompanied and complemented the intellectual, political and economic aspects of modernization." See Cyril E. Black, *The Dynamics of Modernization: A Study in Comparative History* (New York: Harper & Row, 1966), p. 20.

they can all be considered modernized. With regard to the economic development, as mentioned in the beginning of the chapter, the three societies have performed economic miracles in the last two decades. It is certain that they have achieved considerable economic development. In respect of technological and industrial development, Japan, besides being the strongest economy in Asia, has already excelled or outdistanced the most advanced countries in the West. Although Singapore and Hong Kong are behind Japan at the level of technological development, they are undoubtedly industrial societies. Peter Chen considers Japan both highly modernized and highly industrialized. Singapore is not as "modernized" as Japan, but is highly industrialized.<sup>16</sup> In Hong Kong, early in 1966, it was found that 90 per cent of the economically active population participated in industries.<sup>17</sup> Hong Kong is named as a "modern industrial colony".<sup>18</sup> Hence, generally speaking, the three societies can be considered modern societies from the technological and economic aspect.<sup>19</sup>

### *The Socio-Political Dimension*

In respect of the socio-political dimension as well, the three societies can be considered modernized. First, all three societies are highly urbanized. The economic transition of Japan has led to the redistribution of population from the rural to the urban areas. This migration towards urban areas started in the very early

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<sup>16</sup> Peter S. J. Chen, "The Cultural Implications of Industrialization and Modernization: With Special Reference to Southeast Asia." in Vente and Chen, eds., *op. cit.*, p. 121.

<sup>17</sup> Aline K. Wong, "An Analytical Study of the Development of Hong Kong in the Light of Contemporary Theories of Social Change" (in Chinese), *United College Journal*, 9, 1971, 115.

<sup>18</sup> See Keith Hopkins, "Preface" to *Hong Kong: The Industrial Colony* in Hopkins, ed., *op. cit.*, p. xi. Although Hong Kong is an industrialized city, it is commented that it is still behind Singapore at technological level, in respect of the ability to produce computer keyboards. See Christopher Howe and Y. Y. Kueh, "Hong Kong", *Economic and Social Research Council Newsletter*, (54), Mar 1985, 19.

<sup>19</sup> To be specific, according to Peter Chen, Japan is a "developed" modernized country, whereas Singapore is only a "modernizing" country developing to be as modernized as Japan. Rance Lee also cites Hong Kong as a "modernizing" society. See Peter Chen, *op. cit.* and Rance P. L. Lee, "Chinese and Western Health Care Systems: Professional Stratification in a Modernizing Society" in Ambrose Yeo-Chi King and Rance P. L. Lee, eds., *Social Life and Development in Hong Kong* (Hong Kong: The Chinese University Press, 1981), p. 254.

period of modernization.<sup>20</sup> The urban population has been growing: it comprised 41 per cent of the total population in 1960, 52 per cent in 1970, and it reached 56 per cent in 1980, taking into account those who live in a city with a population of 100,000 or more. If the population of municipal corporations of 50,000 or more is also considered, the urban population rose to 68.5 per cent in 1980. Hence the majority of the population of Japan live in the urban areas.<sup>21</sup> Hong Kong and Singapore are described as metropolitan cities. In Hong Kong in 1961, 82.4 per cent of the population lived in the main urban areas. In 1981, the urban population (including the population of the main urban areas and new towns) comprised about 91.2 per cent of the total population.<sup>22</sup> In 1970, according to international statistics, Singapore was considered completely urbanized. In that year, the urban population comprised 60 per cent. The Government plans to accommodate 80 to 85 per cent of the population in government housing estates by 1990, under the scheme for urbanization.<sup>23</sup> As a result of rapid urbanization, nuclear families have been increasing in the three societies.

The literacy rate is high in the three societies. In 1980, it was 100 per cent in Japan and 85 per cent in Singapore. As compared to a rate of 68.9 per cent in 1970, the literacy rate has significantly improved in Singapore.<sup>24</sup> In Hong Kong, the rate was about 80 per cent in 1966. With the development of education, the literacy rate is certainly rising.<sup>25</sup> Hence, the three societies have made considerable developments in education to promote the literacy of their people.

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<sup>20</sup> K. Victor Ujimoto, "Modernization, Social Stress and Emigration" in Toyomasa Fuse, ed., *Modernization and Stress in Japan* (Leiden: E. F. Brill, 1975), p. 81.

<sup>21</sup> Fukutake, *Japanese Society Today*, p. 66.

<sup>22</sup> Hsueh, *op. cit.* and Victor F. S. Sit, "New Town for the Future" in Victor F. S. Sit, ed., *Urban Hong Kong* (Hong Kong: Summerson Eastern Publishers, 1981), p. 146.

<sup>23</sup> For the 1970 figure, see Cheng Siok Hwa, "Demographic Trend" in Peter Chen, ed., *Singapore: Development Policies and Trends*, p. 66. For the classification of Singapore as a completely urbanized city, see Hans-Dieter Evers, "Urbanization and Urban Conflict City" in Peter S. J. Chen and Hans-Dieter Evers, eds., *Studies in ASEAN Sociology*, p. 324. For the government's urbanization and housing policies, see Peter S. J. Chen, "Singapore's Development Strategies: A Model for Rapid Growth" in Peter Chen, ed., *Singapore: Development Policies and Trends*, p. 14.

<sup>24</sup> Woodrow, *op. cit.*, p. 31. For the 1970 figures of Singapore, see Chan Chen-Tung, "The Changing Socio-Demographic Profile" in Hassan, ed., *op. cit.*, p. 277.

<sup>25</sup> David Podmore, "The Population of Hong Kong" in Hopkins, ed., *op. cit.*, p. 46.

Mass communication has also developed rapidly. In Japan in 1981, 2,249 monthly magazines, and 95 weekly magazines were published. The estimated number of copies per capita published was 9.2 books, 14.2 monthly magazines, and 11.5 weekly magazines. There were more than 125 daily newspapers, and their circulation was 575 per 1,000 persons. Japan is thus the most widely read nation in the world.<sup>26</sup> Radio and television broadcasting is undertaken by the Japan Broadcasting Corporation and 116 commercial broadcasting companies, using a total of 12,816 stations. Ninety-nine per cent of households owned colour TV sets.<sup>27</sup> In even such a small place as Hong Kong, there were 72 newspapers and 413 periodicals in 1981. The circulation of newspapers was 300 per 1,000 persons. There were 10 radio channels and 4 television channels. Further, over 92 per cent of households owned TV sets. And the younger generation is so attracted by television that they are described as the "TV generation" in Hong Kong. According to a psychological study in the early 1970s, it was found that exposure to the mass media was a significant factor in the modernization of the Hong Kong Anglo-Chinese school adolescents.<sup>28</sup> In Singapore in 1980, there were 9 newspapers but the circulation was 255 per 1,000 persons. There were 5 radio channels and 3 television channels. Nearly every household had a TV set as there were 5.4 Singaporeans per TV set.<sup>29</sup> Of the three, Singapore seems to be the least developed in mass communication, but it should be noted that it is only half the size of Hong Kong, both in area and population.

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<sup>26</sup> Japan. Statistics Bureau, *Statistical Handbook of Japan 1983*, pp. 132-134. According to U. N. figures, in 1971, Japan published 24,593 new titles, including 2,228 translations. The U. S., with twice population, published 31,619 new titles, including 2,285 translations. Japan circulated 509 daily newspapers per 1,000 population, compared with 319 in the U. S. See U. N. Secretariat, *Annual Statistical Yearbook*, cited by William K. Cummings and Ikuo Amano, "The Changing Role of the Japanese Professor" in William K. Cummings, Ikuo Amano and Kazuyuki Kitamura, eds., *Changes in the Japanese Universities: A Comparative Perspective* (New York: Praeger, 1979), p. 140.

<sup>27</sup> Japan. Statistics Bureau, *op. cit.*

<sup>28</sup> For figures, see *Hong Kong 1983: A Review of 1982*, pp. 184-187. For the characteristics of the "TV generation", see "The TV Generation" in Qiu et al., eds., *op. cit.*, pp. 51-55. For the influence of mass media on modernization, see John L. M. Dawson and William W. C. Ng, "Effects of Parental Attitudes and Modern Exposure on Chinese Tradition-Modern Formation", *Journal of Cross-Cultural Psychology*, 3(2), Jun 1972, 207.

<sup>29</sup> Singapore. Information Division, *Singapore: Facts and Figures 1985* (Singapore: Ministry of Communication and Information, 1985), pp. 174-177.

Bureaucratization, according to Max Weber's concepts, includes the following characteristics: fixed areas of official jurisdiction governed by laws and regulations; offices organized on the basis of a clear hierarchy of authority; administration based on written documents and conducted according to procedures for which special training is required; personally free officials appointed on the basis of technical qualifications; impersonal relationships between organizational members and with clients; appropriation of neither office nor the means of administration by the official who is employed full-time and subject to strict discipline; a career for the official in which promotion is governed by seniority or merit, and a fixed salary.<sup>30</sup> All these characteristics are tied together into a coherent totality under the phenomenon of "rationality", which is an important manifestation or guiding principle of modernization.<sup>31</sup> As all the three societies are highly organized, it is not difficult to find the above characteristics within the social systems, except that relationships between organizational members may not be impersonal. "Group spirit and paternalistic employer-employee relationship" is a common Asian trait that can be found in the three societies.<sup>32</sup> The close relationship between organizational members is especially well-known in Japan. Even though "loyalty" to the company may be declining, the sense of belonging to the company is upheld by this close relationship. With this minor variant, the three societies can be considered highly bureaucratized.<sup>33</sup>

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<sup>30</sup> Max Weber, *The Theory of Social and Economic Organization* (New York, The Free Press, 1964), pp. 329-341. See also Martin C. Albrow, "Bureaucracy" in G. Duncan Mitchell, ed., *A Dictionary of Sociology* (London: Routledge & Kegan Paul, 1970), p. 21. Peter Berger et al. hold that the bureaucratic system is characterized by competence, proper procedure, and anonymity. Moreover, they regard orderliness, general and autonomous organizability, predictability, general expectation of justice, moralized anonymity, non-separability of means and ends, and explicit abstraction as the elements of the cognitive style of bureaucratic consciousness. See Peter Berger, Brigitte Berger and Hansfried Kellner, *The Homeless Mind: Modernization and Consciousness* (Middlesex: Penguin Books, 1974), pp. 46-56.

<sup>31</sup> Not only is bureaucratization under rationalization, but so are other aspects of modern society such as mechanization, secularization and industrialization. See Hall, *op. cit.*, p. 24. Concerning rationality as the ideal and guiding principle of modernization, see Ho Wing Meng, "Asian Values and Modernization" in Seah Chee Meow, ed., *Asian Values and Modernization* (Singapore: Singapore University Press, 1977), p. 2.

<sup>32</sup> Peter S. J. Chen, "Asian Values and Modernization: A Sociological Perspective" in Seah, ed., *op. cit.*, p. 30.

<sup>33</sup> However, in a study of employment relations in Hong Kong, Siu-Kai Lau observes that the managerial attitudes in Hong Kong are "to a large extent rational and pragmatic". See Siu-Kai Lau,

In summary, it is clear that Japan, Hong Kong and Singapore can be seen as modernized societies within the socio-political dimension. And it can be further concluded that the three societies can reach “external” modernization, when both the above two dimensions are taken into account. It remains to consider the third dimension - the dimension of value system or the internal condition.

### *The Dimension of Value System*

Japan, Singapore and Hong Kong are “late-comers” in modernization, according to Marion J. Levy’s concept. In contrast to those indigenous developers who initiated modernization and developed their structures mainly on their own and over a relatively long period of time, the late-comers are mainly borrowers and imitators. Hence the process of modernization means the introduction of foreign models. Some developments, such as facilities for education and means of communication, must be carried out on a fairly large scale, and the whole society is thus affected.<sup>34</sup> The adoption of new models always requires the adjustment or abrogation of traditional and existing models. The whole society is therefore confronted with the problem of adjustment between old and new models in the process of modernization. In respect of value system, Talcott Parsons contrasted two sets of value-orientations between “traditional” or “modern” societies, namely particularism, ascription and collective-orientation versus universalism, achievement and self-orientation; and he concluded that technological and industrial advancement in a society might lead to a shift of value-orientations from the former set to the latter set.<sup>35</sup> However it is necessary to add at least one more dichotomy for the three societies, that

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“Employment Relations in Hong Kong: Traditional or Modern” in Tzong-Biau Lin, Rance P. L. Lee, and Udo-Ernst Simonis, eds., *Hong Kong: Economic, Social and Political Studies in Development* (New York: M. E. Sharpe, 1979), p. 75.

<sup>34</sup> Marion J. Levy, Jr., *Modernization and the Structure of Societies: A Setting for International Affairs* (New Jersey: Princeton University Press, 1966), pp. 16 & 749-754.

<sup>35</sup> Talcott Parsons, *The Social System* (London: Routledge & Kegan Paul, 1964), pp. 67, 190, 508 & 533. See also Bert F. Hoselitz, “Social Structure and Economic Growth”, *Economia Internazionale*, 6(3), 57-66 and “Social Stratification and Economic Development”, *International Social Science Journal*, 240-241.



is, frugality versus consumerism.<sup>36</sup> Some new models are easier to develop than others. Similarly, some traditional models are more easily superseded than others. Henceforth, in transitional societies, there may be a coexistence of two sociocultural systems.<sup>37</sup>

### *Achievement-Orientation and Universalism*

Achievement-orientation refers to the extent to which people are judged on the basis of their performance instead of their attributes such as sex, age, lineage, and so forth. In this respect, it is observed that the three societies are becoming increasingly achievement-orientated. According to the United States ECAFE survey conducted in Singapore in 1972, only 14.6 per cent of professional and related workers came from families of the same occupational status as themselves. The other 85.4 per cent came from families of lower occupational status. With regard to the income level, 64.8 per cent of high-income groups (with monthly incomes of S\$1,201 and above) came from families with lower income levels. These data, besides showing a certain extent of upward mobility, show that success is increasingly due to individual performance and merit.<sup>38</sup> When discussing the business elites in Singapore, S. Y. Lee asserts that in Singapore today, hard work, thrift and paper qualifications (educational attainment) are the keys to success in climbing the social ladder and establishing business.<sup>39</sup> Education is especially seen as the key to upward social mobility and success in life. Over 90 per cent of the respondents from the lower class and working class showed such attitudes.<sup>40</sup>

In Hong Kong, according to a survey in 1966, among various factors such as

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<sup>36</sup> This dichotomy actually constitutes as a paradox in modern society, which will be discussed in Chapter Nine.

<sup>37</sup> Rance Lee, *op. cit.*, p. 255. See also Lau, *op. cit.*, p. 76.

<sup>38</sup> Peter S. J. Chen, "Professional Intellectual Elites in Singapore" in Chen and Evers, eds., *op. cit.*, pp. 28-29 & 34-35.

<sup>39</sup> Lee Sheng Yi, "Business Elites in Singapore" in *ibid.*, pp. 38-39.

<sup>40</sup> Peter S. J. Chen, "Changing Values and the Individual" in Tham, ed., *op. cit.*, pp. 59-60.

parents' occupational status and educational attainment, the primary influence on success is the son's own educational achievement.<sup>41</sup> F. M. Ming's study of two surveys in 1972 and 1975 found that in the upper and upper-middle categories, 81 per cent and 70 per cent of the fathers, respectively, had lower positions than their sons, whereas 79 per cent and 33 per cent of the sons in the lower and lower-middle categories, respectively, occupied higher positions than their fathers. Thus among the upper, upper-middle, and lower categories, there was obvious inter-generational occupational mobility in the 1970s - It is the son's personal effort that matters.<sup>42</sup> Concerning Hong Kong as an achievement-orientated society, Graham Jenkins, a leading Hong Kong journalist, says,

Pedigrees are not what matters, nor disciplines imposed from above. Rather it is the stiff individual test of the Hong Kong pressure-cooker.... Personal achievement prevails,... self-reliance seems almost inborn.... Hong Kong is essentially an example of what the individual will do when driven by the desire for dignity through self-betterment, given freedom of action in an increasingly sophisticated competitive society.<sup>43</sup>

In Japan, merit was already seen as an important guideline for making appointments in the rudimentary bureaucracies of the seventeenth century. It was from the mid-Tokugawa period that hereditary rigidity set in. However, despite the ascriptive principles which in fact operated, the "merit ideology" was so dominant among the intellectuals of Tokugawa society that no counter-ideology developed explicitly to justify the hereditary principle. Hence, "if a shift from ascription to achievement is in fact a necessary prerequisite for modernization, Japan was especially well prepared."<sup>44</sup> Modern Japan is well known as a competitive and achievement-orientated society. In a cross-cultural study of achievement, David McClelland

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<sup>41</sup> Robert E. Mitchell, *Levels of Emotional Strain in Southeast Asian Cities: A Study of Individual Responses to the Stresses of Urbanization and Industrialization* (Taipei: The Ancient Cultural Service, 1972), pp. 160-164.

<sup>42</sup> Fai-Ming Wong, "Family Structure and Process in Hong Kong" in Lin, Lee and Simonis, eds., *op. cit.*, p. 116.

<sup>43</sup> Jenkins, *op. cit.*, pp. 3-5.

<sup>44</sup> Thomas C. Smith, "Merit' as Ideology in the Tokugawa Period" in Ronald P. Dore, ed., *Aspects of Social Change in Modern Japan*, pp. 77-87. See also Ronald P. Dore's "Introduction", in *ibid.*, p. 6.

finds that Japanese youngsters are the most achievement-orientated.<sup>45</sup> Moreover, the youngsters also believe that success mainly depends on their own efforts rather than on outside help from their families or relations. Such attitudes were already noticed in a UNESCO survey in the early fifties, in which 59 per cent of the respondents thought that their own ability would help them most to get ahead whilst 35 per cent thought the opposite.<sup>46</sup> As educational attainment is an obvious means to achievement, it is no wonder that the youngsters devote so much effort to the attempt to enter the best universities. Ronald Dore concludes, "in general terms ... it seems undoubtedly true that, as compared with a century ago, the allocation of prestige, power, and income in modern Japan depends to a much greater degree on demonstrated abilities and much less on ascribed characteristics."<sup>47</sup>

Generally speaking, the three societies can be considered achievement-orientated. Achievement-orientation is in a way a manifestation of universalism, which refers to the prevalence of universal norms or standards over criteria which are grounded in local, traditional or segmental considerations. Ezra Vogel regards Japan's early system of placement and promotion as "universalism with a particularistic framework", since a man had to rely, for example, on the *ie* for a new placement when he left his job. Nevertheless, he admits that on the whole, within the last generation the importance of universalistic criteria for hiring and promoting has increased dramatically as a result of the increased size of business organizations.<sup>48</sup> Robert Mitchell's survey in 1966 found that about 24 per cent of the people in Singapore and Hong Kong depended on kinsmen for obtaining jobs, which is the smallest proportion among 5 Southeast Asian societies. In contrast to these societies, 70 per cent of the Bangkok Chinese males obtained their jobs through the help of kinsmen. Singapore and Hong Kong by comparison are really universalistic.<sup>49</sup>

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<sup>45</sup> David McClelland, *The Achieving Society* (New York, The Free Press, 1972), p. 77.

<sup>46</sup> Jean Stoetzel, *Without Chrysanthemum and the Sword* (Paris: Unesco, 1955), pp. 207-208.

<sup>47</sup> Dore, *op. cit.*, p. 7.

<sup>48</sup> Ezra F. Vogel, "Kinship Structure, Migration to the City, and Modernization" in Dore, ed., *op. cit.*, p. 96-97.

<sup>49</sup> Mitchell, *op. cit.*, p. 169.

*Consumerism*

Besides tending to become more and more achievement-orientated and universalistic, the three societies are also becoming increasingly consumption-orientated. Frugality was held in high regard in traditional Chinese and Japanese societies, but it has been replaced by consumerism today. Before the war, the Japanese regarded consumer buying as a kind of vice, but after the war it became a virtue. High consumer spending is now acceptable, or even prestigious.<sup>50</sup> In Japan, the traditional "three sacred treasures" were the mirror, the jewels, and the swords. However in the 1950s, these three sacred treasures were replaced by the television, the refrigerator, and the washing machine. In the 1960s, people craved for the three C's: the car, the colour television, and the "room cooler" (air conditioner).<sup>51</sup> Since the mid-seventies, it has been found that people in general have become less interested in the consumption of material objects, especially consumer durables. The authors of the 1977 White Paper on National Life termed this change "a detachment from things". However, H. Kato argues that this change rather denotes the start of a "post-materialism" era in Japan.<sup>52</sup> This observation is in accord with T. Fukutake's analysis that people are moving to greater expenditure on leisure activities. One example is travelling. In 1970, the proportion of people making short journeys during holidays was only 33 per cent. But in 1975, 72 people out of 100 took short trips. From 1970 to 1980, the number of those who travelled overseas increased from 660,000 to 4 million.<sup>53</sup> From the consumption of materials, people change to the consumption of experience.

In Hong Kong and Singapore, people also indulge in greater material consumption. In Singapore, it is noted that the materialistic outlook is so strong that other

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<sup>50</sup> Fukutake, *op. cit.*, p. 102.

<sup>51</sup> E. O. Reischauer and Albert M. Craig, *Japan: Tradition and Transformation* (Tokyo: Charles E. Tuttle, 1978), pp. 296-297.

<sup>52</sup> Hidetoshi Kato, "From Things to Experience - Changing Values in Contemporary Japan" in Ian Miles and John Irvine, eds., *The Poverty of Progress: Changing Ways of Life in Industrial Societies* (Oxford: Pergamon, 1982), pp. 269-274.

<sup>53</sup> Fukutake, *op. cit.*, pp. 104-105.

cultural activities are jeopardized. This phenomenon is discussed by W. M. Ho:

For twenty years at least, the pursuit of a materially better quality of life has been the magnificent obsession of the Government and of most people, so much so that with the exception of important figures in the Government, anyone who has the temerity to advocate and campaign for the nurturing of a more humanistic system of values than the harsh materialism of economic competition that we have been used to, by enriching our mental equipment with some knowledge of literature, drama, music ... would most certainly be dismissed with arrogant contempt.<sup>54</sup>

Moreover, recreation is commercialized, making recreation a sort of consumption as well. Hence, it may restrict recreation to those with “consuming ability”, and at the same time it encourages the pursuit of increasing “consuming ability” not only for materials but also for recreation.<sup>55</sup> It is no wonder that Singaporean youth is seen as preoccupied with the pursuit of wealth (consumption ability) and materialism.<sup>56</sup>

In Hong Kong, millionaires have become the “neo-heroes”, and material well-being is the reward for the neo-hero’s success. “Thus, the Chinese youth comes from his first working day in life and announces enthusiastically to the family he’ll be a millionaire in five years time. He asks what do they all want - a Rolls Royce, a new house, or what? It follows that Hong Kong’s prototype millionaire is expected to wear immaculate pin-stripe blue and ride in a chauffeur-driven limousine. He must have a lavish house and servants and indulge his wife and children.”<sup>57</sup> Since the 1970s, Hong Kong has been so overwhelmed by commercialism and consumerism that it has suffered from “over-internal-consumption”. The “consumption culture” has led to the formula “consume - study/work - consume” as the goal of the life for the people, especially the youngsters. Students take up part-time jobs to earn

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<sup>54</sup> Ho Wing Meng, “Cultural Change and Social Values” in Saw and Bhathal, eds., *op. cit.*, pp. 151-152.

<sup>55</sup> N. Govindasamy, “The Worker in His Hours of Leisure” in Tham, ed., *op. cit.*, p. 146.

<sup>56</sup> Lee Wai Kok, “Youth Involvement in Community Development” in *ibid.*, pp. 126-127.

<sup>57</sup> Jenkins, *op. cit.*, p. 2.

money not for supporting their studies but for showing off their consuming ability.<sup>58</sup>

### *Self-Orientation*

Self-orientation refers to the commitment of people to private rather than collective goals. This characteristic is not as clear-cut as the previous two. First, it seems that the traditional collective-orientation has not died away in the three societies. In "Asian Values and Modernization: A Sociological Perspective", Peter Chen outlines five contemporary Asian values which can still apply to the three societies. By Asian values, he means specifically Chinese and Japanese values. However, out of the five values, three are related to collective-orientation. They are (1) group spirit and paternalistic employer-employee relationships, (2) mutual assistance and community life, and (3) parent-child relationships and cohesive family life. Except for the third one, which has shown an obvious decline as a result of urbanization, the first two still apply in the three societies.<sup>59</sup>

Collectivism is especially a characteristic of Japan. "Japan is still a collective-oriented society", T. Fuse asserts, "in which priority in national interests is put far ahead of the individual welfare of the citizens." For him, this is the reason for Japan's economic success.<sup>60</sup> Other scholars such as Robert Smith and Robert Cole share this viewpoint. Robert Cole even suggests that the willingness of the workers to commit themselves to the company for the sake of the group and the company is an example for American blue-collar workers.<sup>61</sup> In Hong Kong and Singapore, it

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<sup>58</sup> See Y. A. Chang, "Looking through the Consumption Culture of Hong Kong Youths", and "An Analysis of the Attitudes of Student Adolescents: A Survey Report" (both in Chinese) in Qiu et al., eds., *op. cit.*, pp. 56-83.

<sup>59</sup> Peter S. J. Chen, "Asian Values and Modernization: A Sociological Perspective" in Seah, ed., *op. cit.*, pp. 29-37.

<sup>60</sup> Toyamasa Fuse, "Japan's Economic Development: Success, Stress and Prospects for the Future" in Fuse, ed., *op. cit.*, p. 24.

<sup>61</sup> Robert Cole, *Japanese Blue Collar: The Changing Tradition* (Berkeley: University of California Press, 1971), p. 178. See also Robert Smith, *Japanese Society*, p. 73.

is possible to find similar examples.<sup>62</sup>

However, in contrast to collectivism, individualism can be observed in the three societies. In a survey conducted in 1977, H. Kato found that the ideal of the good life had changed considerably in Japan. Most people chose to live with wholesome, carefree enjoyment as their goal of life. Hence, "this seems to indicate a shift away from values of altruistic empathy, self-sacrifice and asceticism, and toward individual-centred, liberated, joyful altruism."<sup>63</sup> A 1984 Government White Paper also comes to the same conclusion: 38 per cent of the respondents said they wanted personal success, but only 3.7 per cent said they wanted to serve.<sup>64</sup> In a study of the correlation of parent-child relationships and certain psychological variables among adolescents in Hong Kong, J. Chan observes that boys tend to reject the traditional method of child-rearing and favour a greater degree of individualism.<sup>65</sup> It is also asserted that individualism and non-commitment are becoming prevalent among the young people in Singapore today, accompanying the process of modernization.<sup>66</sup>

### *The East-West Dichotomy*

As "late-comers", the three societies are confronted with the problem of Westernization as well as the process of modernization. Westernization is different from modernization in the sense that "Westernization is the adoption of Western values and cultural elements of the type that have nothing to do with the process of the application of modern scientific developments in society."<sup>67</sup> Nevertheless, although

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<sup>62</sup> See Chen, *op. cit.*

<sup>63</sup> Hidetoshi Kato, *op. cit.*, p. 273.

<sup>64</sup> Cited by Helen Yum, "Where the Kids Are", *Asiaweek*, 28 Jun 1985, p. 20.

<sup>65</sup> J. Chan, "Correlates of Parent-child Interaction and Certain Psychological Variables among Adolescents in Hong Kong" in J. L. M. Binnie-Dawson, C. H. Blowers and R. Hoosain, eds., *Perspectives in Asian Cross-Cultural Psychology* (Lisse: Swets and Zeitlinger, 1981), p. 113.

<sup>66</sup> Tham Seong Chee, "Identity and Self" in Tham, ed., *op. cit.*, p. 47 and Peter Chen, "Changing Values and the Individual" in *ibid.*, p. 61.

<sup>67</sup> Syed H. Alatas, *Modernization and Social Change* (Sydney: Angus and Robertson, 1972), p. 72.

“Eastern spirit, Western science” has always been a slogan in China and Japan, and although some scholars especially in Japan have the conviction that it is possible to modernize without being Westernized, it is difficult to disregard “Western influence” in the three societies.

There is no lack of literature on Westernization in Japan. Since the beginning of modernization, Japan has been facing the conflict of Japanization against Westernization. “What to adopt and what to reject” has been the topic of debates and disputes.<sup>68</sup> For instance, early in the 1870s, people began to dispute on issues such as the adoption of Western dress, hair-cuts, umbrellas, and the like. Some leaders tended to learn not only Western technology but also Western living styles in order “not to be laughed at by Westerners”. However, some scholars and leaders showed contempt towards such Westernization. The conflict still exists today, as the 1984 White Paper deplores the loss of old values among the youth of Japan:

Japanese youth is pampered, over-sexed, over-fed, money-grabbing, self-interested, introverted, apathetic, lazy and lacking the sense of responsibility that has traditionally characterized Japanese society. And perhaps not surprisingly, most of this is attributed to the Western culture that has poisoned the old values.<sup>69</sup>

Singapore has experienced the same conflict. Lee Kuan Yew has many times called for an awareness of Western influence:

With Western industries have come Western technologists and executives, their wives and children and their life styles. Some of them give visible demonstration of the new hedonist cult ... The continuous appeal to the baser instincts is found in too many Western-made or Western-style television advertisements, whether selling soft drinks or soap. American

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<sup>68</sup> As literature on Westernization abounds, only some examples are given. See Donald Shively, ed., *Tradition and Modernization in Japanese Culture* (New Jersey: Princeton University Press, 1971), especially Michio Nagai, “Westernization and Japanization: The Early Meiji Transformation of Education” and Donald H. Shively, “The Japanization of the Middle Meiji” in *ibid.* See also G. B. Sansom, *The Western World and Japan* (London: The Cresset Press, 1950), pp. 395-516, and Reischauer and Craig, *op. cit.*, pp. 155-158.

<sup>69</sup> Cited by Geoffrey Parkins, “Japanese Youth ‘too pampered’”, *The Times Higher Education Supplement*, 8 February 1985.



weeklies carry discussion of drugs, of promiscuity and perversion, often without a word of disapprobation.<sup>70</sup>

The above is a quotation of Lee's speech against the long-hair style of the early seventies. In the eighties, Lee also reminded youngsters:

On the basis of traditional Asian values, Singapore has grown into a successful and socially cohesive society, but if Western values are adopted, cohesion will be threatened and the country will go downhill.<sup>71</sup>

Hong Kong has been a British colony for over 100 years, and there is no doubt that it has experienced a considerable degree of Westernization. As it is a society with about 98 per cent of ethnic Chinese, with strong Western influence, the East-West dichotomy exists there also. Some examples may illustrate the situation. In 1967, there were riots against the government. Although it was suggested that the riots were the repercussions of the Cultural Revolution in China, they were directed against the "Western" government. In the early 1970s,<sup>72</sup> people strove for the official status of the Chinese language. In the late 1970s and early 1980s, on the one hand, there was a trend for rethinking people's "roots" - their national identity. All these phenomena are the expression of a reaction against overwhelming Western influence.

### *Transitional Societies*

From the above discussion, it is manifest that within the dimension of value sys-

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<sup>70</sup> Cited by William A. Hanna, *Culture, Yellow Culture, Counterculture, and Polyculture in Culture-Poor Singapore* (American Universities Fieldstaff Reports, 1973), p. 8.

<sup>71</sup> Cited by "Choose Between East and West, Young Told", *The Times Higher Education Supplement*, 12 Apr 1985, 10.

<sup>72</sup> "The labour disputes, the strikes, the riots and the bombs signified not only a threat to organized law, but also a dissatisfaction with the present structure of the economy and with a government which embodied for some the very worst and most repulsive elements of colonial rule." See John Cooper, *Colony in Conflict: The Hong Kong Disturbances, May 1967-January 1968* (Hong Kong: Swindon Book, 1970), p. 283.

tem, the three societies show a clear trend towards achievement and consumerism. However, the development of “self-orientation” is not so clear. Above all, the existence of the East-West dichotomy shows that modernization of values is more difficult to achieve. This leads to the conclusion that while external conditions can be quickly and easily modernized it is a more difficult and slower process to modernize the internal conditions. In other words, in respect of external conditions, the three societies can be considered modernized or at least relatively modernized in the case of Singapore and Hong Kong. However, in respect of internal conditions, they are still in a transitional state, and can be called transitional societies.

Although these societies are still “transitional” in respect of values, their current outlook is quite different from their traditional outlook. People’s goals of life have changed. In the past, people pursued knowledge (for their own sake and for their country’s sake), character, sensibility, and above all morality. However, nowadays, people pursue achievement and consumerism. In contrast to the major concern for developing one’s moral sense in the past, it is no longer stressed today. Ronald Dore’s observation on such change is illuminating:

The patterns (of success) are traditional enough, but they are drained of moral content. The principles of reciprocity, of modest self-effacement, of consideration for others, of sincerity, are reduced to rules of the game which must be observed to pursue one’s own personal ends.”<sup>73</sup>

## **B. Forces of Change in Education**

Education does not take place *in vacuo*. It is profoundly affected by social settings and is attached to a social context. Education reflects and affects a society’s economic situation, for education is regarded as a form of “national investment” and is considered to be able to develop human resources to a certain extent, by

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<sup>73</sup> Ronald P. Dore, “Mobility, Equality, and Individuation in Modern Japan” in Dore, ed., *op. cit.*, p. 144.

“increasing the knowledge, the skills, and the capacities of all the people in a society”.<sup>74</sup> Education also reflects and affects a society’s culture. On the one hand, “education depends on the whole culture of a society”.<sup>75</sup> On the other hand, education bears “the transmissive, the transitional, and the transformative” roles in respect of culture.<sup>76</sup> Moreover, education reflects and affects the political situation of a society. It can be a servicing agency of the ruling class or “an instrument of class control”, but it can also “promote anti-system attitudes and behaviour (for example, student radicalism), develop an institutional lethargy at times oblivious to the needs of the dominant political order ...”<sup>77</sup>

R. Murray Thomas and T. Neville Postlethwaite have developed a model for evaluating the socio-economic, cultural and political forces that may effect educational change. They group these forces into seven dimensions: magnitude of intended change, availability of alternatives, motivation or philosophical commitment, social and organizational stability, resource accessibility, organizational and technical efficiency, and adequacy of funding. Within each dimension, there may be positive forces that hasten change and negative forces that retard change. Forces can be classified into enabling (or disabling) ones and direct ones. An enabling force is one that is “used for identifying a causal condition that provides an opportunity for educational innovation but is not directly involved in the change”. A direct force is one that “applies specifically to the process of schooling”.<sup>78</sup> As a conclusion of this section, the socio-economic, cultural and political implications on education in Japan, Singapore and Hong Kong will be analyzed in the light of these seven dimensions.

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<sup>74</sup> See Federick Harbison and Charles A. Myers, eds., *Education, Manpower and Economic Growth: Strategies of Human Resource Development* (New York: McGraw-Hill, 1964), pp. 2-3.

<sup>75</sup> A. K. C. Ottaway, *Education and Society: An Introduction to the Sociology of Education* (London: Routledge & Kegan Paul, 1962), p. 38.

<sup>76</sup> Ruth Benedict, “Transmitting Our Democratic Heritage in the School”, *American Journal of Sociology*, 48, 1943, 724-745.

<sup>77</sup> See Ted Tapper and Brian Salter, *Education and the Political Order: Changing Patterns of Class Control* (London and Basingstoke: The Macmillan Press, 1978), p. xii.

<sup>78</sup> R. Murray Thomas and T. Neville Postlethwaite, “Describing Change and Estimating Its Causes” in R. Murray Thomas and Neville Postlethwaite, eds., *Schooling in East Asia: Forces of Change* (Oxford: Pergamon, 1983), pp. 10-35.

Within the dimension of magnitude of intended change, small population, small territory, easily traversed terrain and waterways, mild climate, as well as advanced communication and transportation facilities such as radio, telephone, television, electronic-computer systems, fast trains, ships, cars, and aeroplanes constitute the enabling forces. On the other hand, some aspects of education system to be changed may form the direct forces.<sup>79</sup>

Japan's population and territory is much larger than those of Singapore and Hong Kong (Japan's population was 117 million in 1980, Singapore's was 2.4 million in 1980, and Hong Kong's was 5.2 million in 1981; Japan's size is 377,728 square kilometres, Singapore's is 618.7 square kilometres, and Hong Kong's is 1066 square kilometres).<sup>80</sup> Hence, the overall educational task is more manageable in Singapore and Hong Kong than in Japan. On the other hand, although Japan's area is relatively larger and nearly 70 per cent of the country is made up of precipitous mountains, its complex and efficient railway network stretches across the country, and the capital and the big cities are served by commuter railways.<sup>81</sup> The size of the student population is much reduced relatively when compared with the pre-war period, when the educators of Japan had to deal with education in the colonies also.<sup>82</sup> Population control is effective in all three societies. The average annual rate of population increase was 0.7 per cent in Japan in 1980 and 1.2 in Singapore in 1980. In Hong Kong, due to the large inflow of immigrants, the average annual growth rate increased from 1.4 per cent in 1976-1977 to 3.6 per cent in 1978-1980. However, as a result of revisions of immigrations policy at the end of the years 1980 and 1982, the average annual growth rate was reduced to 1.4 per cent over the period 1981-1986.<sup>83</sup> Concerning climate, although Japan and Hong Kong are under

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<sup>79</sup> *Ibid.*, p. 14.

<sup>80</sup> *Statistical Handbook of Japan 1983*, pp. 10 and 15; *Singapore' 81*, p. 206, Foreign and Commonwealth Office, *A Yearbook of the Commonwealth 1983* (London: HMSO, 1983), p. 456; and *Hong Kong 1984: A Review of 1983*, p. 235.

<sup>81</sup> Cowen and McLean, *op. cit.*, pp. 210-212.

<sup>82</sup> R. Murray Thomas, "The Case of Japan - A Prologue" in Thomas and Postlethwaite, eds., *op. cit.*, pp. 46-47.

<sup>83</sup> *Statistical Handbook of Japan 1983*, p. 18; *Singapore' 81*, p. 206; and *Hong Kong 1987: A Review of 1986*, p. 291.

the attack of typhoons in summer and early autumn, the well constructed buildings and the accurate weather forecasts have reduced much of their destructive effects. Although Singapore is hot, it is moderated by the surrounding sea.

As Japan and Hong Kong are generally homogeneous in respect of ethnicity, the planning and the implementing of educational policies are much easier than in Singapore, which is a multi-cultural and multi-lingual society.

In the second dimension - availability of alternatives - the enabling forces are formed by a society with a high proportion of people supporting modernization and a society that interacts freely with other societies and encourages new ideas. Education leaders who seek new ideas and encourage varied opinions and proposals may become the direct forces in educational innovation.<sup>84</sup>

In this respect, all three societies have favourable enabling forces. In Japan, modernization has been advocated by political leaders since the Meiji period, in the conviction that "a society needs not be buffeted about by external forces but, instead, a people can determine their own fate through careful planning, the continual adoption of more advanced technology, and hard work".<sup>85</sup> The commitment to modernization is especially obvious in the post-war period. People adopt a modernist view partly because they have experienced a loss of self-sufficiency in agricultural production. The entry of Westerners in the early nineteenth century, the defeat of Japan, and the supervision by the United States have made Japan open its door to Western influences. Education in Japan is a means of achieving the goal of modernization, equipping everyone to perform a constructive role in the society, both as a citizen and as a worker.<sup>86</sup>

Singapore, a society of immigrants and a country newly independent, lacks

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<sup>84</sup> Thomas and Postlethwaite, *op. cit.*, p. 14.

<sup>85</sup> Thomas, *op. cit.*, p. 48.

<sup>86</sup> *Ibid.* and Thomas and Postlethwaite, *op. cit.*, pp. 21-22.



historical precedents in many aspects including education. It is felt that the quickest way to build up the country is to follow the examples of the more developed Western countries, especially the United Kingdom, which had laid the foundations of the educational system in Singapore.

Hong Kong has been a British colony up to the present. New ideas and practices are brought in continuously. Moreover an important trend is that the number of students from Hong Kong pursuing higher education in overseas countries is increasing. It is reasonable to suppose that they may bring back new ideas when they return.<sup>87</sup>

On the other hand, all three societies practise centralized control in government and also in education. However, with a large proportion of private schools in Hong Kong, the influence of the central authority is weakened. With the introduction of compulsory education, the Hong Kong government has been converting the private schools into government-aided schools. The government's influence on the schools will thus increase.<sup>88</sup>

The third dimension is motivation or philosophical commitment. In this dimension, the enabling forces are formed by a high proportion of people agreeing about the desirability of modernization. The direct forces are formed by powerful educational leaders who are strongly committed to effecting these changes.<sup>89</sup>

The need for modernization is shared by all three societies, and the disposition of these societies towards the development of technical education is evident. It may be due to the fact that all of them lack natural resources, and the only way for them to survive is by developing industries which rely on high technology. The

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<sup>87</sup> "Figures on Hong Kong Education" (in Chinese) in Hong Kong Federation of Students' Unions and CUHK Students' Union, eds., *op. cit.*, p. 7.

<sup>88</sup> Cowen and McLean, *op. cit.*, pp. 233 & 471.

<sup>89</sup> Thomas and Postlethwaite, *op. cit.*, pp. 14-15.

Westernization process is also a contributing factor. All of them share the view that education is a crucial factor in these developments.<sup>90</sup>

In addition, there exist three other kinds of motivation. First, sufficient dissatisfaction, by which “an individual foresees a future possibility as being so much better than the present state of affairs that he is willing to exert the extra effort needed to bring that possibility to reality.”<sup>91</sup> Japan was dissatisfied with the pre-war system of schooling. Singapore was dissatisfied with the chaotic educational situation before independence. Hong Kong was dissatisfied with its poor economic situation after the war. However, the degree of dissatisfaction in Hong Kong was not so intense as in the other two countries. This was because “apparently the dominant educational aim shared by the peoples of the colonies (Hong Kong and Macau) is the pursuit of self-interest. Education is viewed not as a device for implementing a consciously designed socio-political programme or a given set of cultural goals, but rather as an instrument for achieving personal success, for rising in the economic system, and for gaining social prestige.”<sup>92</sup>

The second motivation is sufficient fear, by which “a person is willing to expend the effort needed to promote a change because he fears what will happen if he does not do so.”<sup>93</sup> Japan feared that resisting the American proposals would jeopardize the positions of Japanese educators in the education system and the American occupation would be prolonged. Singapore feared that unrest among the different ethnic groups (especially among the Chinese and the Malays) would increase if the education system was not improved. Both Singapore and Hong Kong feared that they could not survive without educating for industrialization, since they could less

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<sup>90</sup> Makoto Aso, *Education and Japan's Modernization* (Japan: The Japan Times Ltd., 1983), p. 82; Cowen and McLean, *op. cit.*, p. 462; and *Green Paper: Report of the Board of Education on the Proposed Expansion of Secondary School Education in Hong Kong over the Next Decade* (Hong Kong: Government Printer, 1973), pp. 5-7.

<sup>91</sup> Thomas and Postlethwaite, *op. cit.*, p. 24.

<sup>92</sup> See R. M. Thomas, “The Two Colonies - A Prologue” in *ibid.*, p. 269. Cf. Hiroshi Kida et al., “Japan” in Thomas and Postlethwaite, eds., *op. cit.*, p. 57; and T. R. Doraisamy, ed., *150 Years of Education in Singapore* (Singapore: Teachers' Training College, 1969), pp. 45-8.

<sup>93</sup> Thomas and Postlethwaite, *op. cit.*

and less depend on entrepot trade and cheap labour industries.<sup>94</sup>

The third motivation is sufficient inducement (the inducement of potential reward), by which “a person cooperates in a proposed change because he anticipates personal gain or advancement if he does so”.<sup>95</sup> In Japan, the reward of a more important position in the educational hierarchy apparently induced some to support the American’s recommended reforms in schooling. This kind of motivation seems to be stronger in Japan than in the other two countries.<sup>96</sup>

As the three societies have strongly centralized governments, if the education authorities do feel a need to change, it is relatively easy for them to implement any reform or change of direction. However, one of the reasons for the strong criticisms of too much centralized control in Japan is that the authorities lack the propaganda techniques to secure public support.<sup>97</sup> In Hong Kong, the centralized control is not so effective because of the existence of a large group of private schools (58.2 per cent of the registered schools were private schools in 1983). The number of these schools currently being converted into government-aided schools is increasing.<sup>98</sup>

The fourth dimension is social and organizational stability. Peace and amity in the society, continuity of the ruling government, and regular production of sufficient goods to meet people’s needs constitute the enabling forces. Amicable relations among the education-system’s staff members, rewards to staff for efficient service, clear leadership direction, and infrequent organizational change constitute the direct forces.<sup>99</sup>

Generally speaking, all three societies have enjoyed a period of stability for

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<sup>94</sup> *Ibid.*, p. 26.

<sup>95</sup> *Ibid.*, p. 24.

<sup>96</sup> *Ibid.*, pp. 26-27.

<sup>97</sup> Tetsuya Kobayashi, *Society, Schools and Progress in Japan* (Oxford: Pergamon, 1986), pp. 154-170.

<sup>98</sup> *Hong Kong 1984: A Review of 1983*, p. 297.

<sup>99</sup> Thomas and Postlethwaite, *op. cit.*, p. 15.



more than two decades. However, Singapore had changed its political status twice - becoming independent from Britain in 1963 and from Malaysia in 1965. There was unrest among the Chinese students caused by the language policy in 1961 and also among the Malay students in 1962, but they were of short duration. In 1967, riots occurred in Hong Kong as repercussions of the Cultural Revolution in China. This unrest served to accelerate beneficial changes in social policies. Moreover, the awareness of the future take-over of Hong Kong by the Chinese government may give rise to a sense of uncertainty which may make people less willing to participate in rapid innovation.<sup>100</sup>

The fifth dimension is resource accessibility. The enabling forces are advanced industries and training systems in a society. The direct forces are constituted by “the use of efficient, nearby sources for producing the equipment and personnel required in the intended educational change”.<sup>101</sup>

Japan has been the most successful in providing the educational resources needed for innovation. Singapore and Hong Kong are also well advanced in this respect relative to the Southeast Asian countries. All three societies produce their own ETV programmes. Singapore is conscious of becoming a “brain resource centre” for Southeast Asia. Hong Kong has made greater efforts to education and re-train its own teachers as compared to Singapore (Hong Kong has three Teachers’ Training Colleges and one Technical Teachers’ College whilst Singapore has only one Teachers’ Training College).<sup>102</sup>

In the sixth dimension - organizational and technical efficiency - a society with efficient organizational structures and a high degree of specialization, technical expertise and advanced equipment for material production, processing data, communicating, training people, and the like become the enabling forces for educational

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<sup>100</sup> Doraisamy, ed., *op. cit.*, p. 61 and Miners, *op. cit.*, p. 286.

<sup>101</sup> Thomas and Postlethwaite, *op. cit.*

<sup>102</sup> Thomas, “The Case of Japan - A Prologue”, *op. cit.*

change. The direct forces are formed by the application in the educational-change system of advanced organizational structures, efficient specialization, a high level of skills in specialized tasks, and advanced equipment to perform tasks that are more effectively done by machines than by people, and the existence of an effective method of adapting these systems to the local culture.<sup>103</sup>

All three societies have a systematic educational-administrative-structure and exercise centralized control. All of them have continual revision of curriculum and assessment of the administration of education. They issue white papers or reports to remedy conditions deemed unsatisfactory. Japan is well advanced in providing equipment to support teachers, such as the creation of more suitable technological software and hardware for educational purposes, and the fuller use of modern technologies in the classroom. In Singapore, a wide range of teaching support programmes is used.<sup>104</sup>

The seventh dimension is the adequacy of funding. The enabling forces depend on the ability of a society to have enough wealth to expend large sums for improving services, including educational services. "Education-change advocates who present a convincing case for their project's receiving a high priority in obtaining available education funds" become the direct forces of change.<sup>105</sup> In this respect, education has been one of the major items in the national budgets in all three societies. However in Japan and Singapore, the proportion of expenditure on education has decreased recently. In Japan, the proportion of expenditure on education rose from 5.3 per cent in 1963 to 11.1 per cent in 1979. In 1983, it fell to 9.7 per cent, but education was still one of the five major items in the national budget. In Singapore, education, formerly the biggest item in the national budget, now ranks second, next to defence. In 1964, the proportion of expenditure on education was as high as 24.3 per cent of the national budget, in 1978, it comprised 7.5 per cent. The proportion

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<sup>103</sup> Thomas and Postlethwaite, *op. cit.*

<sup>104</sup> Kida et al., *op. cit.*, p. 73 and Cowen and McLean, *op. cit.*, p. 468.

<sup>105</sup> Thomas and Postlethwaite, *op. cit.*

of education expenditure in the national budget has been more constant in Hong Kong than the other two countries. It was 14 per cent in 1967 and 13.5 per cent in 1983.<sup>106</sup>

From the seven dimensions mentioned above, it is clear that Japan, Singapore and Hong Kong all possess favourable conditions for educational innovation. They have relatively manageable sized population and adequate stimulation from the outside world. They perceive education as a means of the advancement of society and the betterment of individuals. They have all experienced a long period of social stability. Their resource accessibility as well as their organizational and technical efficiency are good and well advanced as compared to other Southeast Asian countries. After all, the governments on average spend about one-tenth of the GNP on education.

Comparatively speaking, Japan has the strongest motivation for educational innovation mainly because of her defeat in the war. The nation feels that it needs to speed up its development in order to recover its past glory. Singapore stands next. As a tiny country without natural resources, a strong economy is essential to survive. The importance attached to survival is clearly seen when the expenditure on defence exceeded that on education in the late 1970s. The need to build a strong economy and a strong state *vis-a-vis* the spreading power of the Communist world in Asia serves as a powerful motivation to educate the people to face all such challenges. Hong Kong lacks the sense of national consciousness that the former two countries possess and its uncertain political status may lead to negative effects in its advancement. However, as Singapore and Japan, without a strong economy (especially by means of industry), it cannot survive at all. This need to survive and to compete with other strong economies serves as sufficient motivation for educational innovation in Hong Kong.

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<sup>106</sup> See *Statistic Handbook of Japan 1983*, p. 93; Cowen and McLean, *op. cit.*, pp. 240 & 470; Anthony Sweeting, "Hong Kong" in Thomas and Postlethwaite, eds., p. 288; and *Hong Kong 1984: A Review of 1983*, p. 71.

## CHAPTER THREE

### EDUCATIONAL BACKGROUND

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Driven by the forces of change, not only have modern social structures emerged in the three societies, but modern educational systems have taken shape as well. A brief examination suggests that post-war Japan, Singapore and Hong Kong all have developed well structured modern educational systems.

#### A. The Educational Environment of Japan

##### 1. The Objectives of Education

The 1890 Imperial Rescript on Education identified the fostering of Confucian ethics and the development of national identity as the focus of education.<sup>1</sup> Since then, the fostering of nationalism was perceived as one of the major education objectives during the pre-war period. The emphasis on the enhancement of national glory was unfortunately promoted to a level of “ultranationalism”, as it has been termed by some scholars.<sup>2</sup> And the development of the ultranationalism led to militarism and expansionism.

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<sup>1</sup> See “Traditional Social Values and Success” of Chapter One. Besides the Imperial Rescript on Education, another important expression of the educational objective as promoting nationalism was the Principles of the National Polity of 1937: “Our Education ... comprises the spirit of guarding and maintaining the prosperity of the Imperial Throne by following the august spirit manifested in the founding of the Empire in keeping with our national entity.” Collected in Passin, *op. cit.*, p. 258.

<sup>2</sup> For instance, Herbert Passin and Toshio Kuruma use the term “ultranationalism”, and Makoto Aso and Ikuo Amano describe it as “anti-Western, anti-modern parochial fascism”. See Herbert Passin, *op. cit.*, p. 257; Toshio Kuruma, “Japan” in T. W. G. Miller ed., *Education in South-East Asia* (Sydney: Ian Novak Publishing Co., 1968), p. 260; and Aso and Amano, *op. cit.*, p. 54.

The end of World War II marked the promulgation of new educational objectives for post-war Japan. Influenced by the U.S.A., the orientation of Japan's education shifted towards the development of individual personality and abilities. For instance, the 25 items of the "General Aims of Education in Japan" prepared by a Ministry of Education committee in 1947 mainly sought to develop an individual's personal life, social life, family life and vocational life.<sup>3</sup> This new emphasis has been reiterated in the major educational programmes developed in the last four decades. The United States Education Mission's first report in 1946 proposed that Japan's system of education should "rest upon the recognition of the worth and dignity of the individual" and "be so organized to provide educational opportunity in accordance with the abilities and aptitudes of each person". Moreover, "education should prepare the individual to become a responsible and co-operating member of society", and should equip the people to become workers, citizens, and human beings.<sup>4</sup> The Fundamental Law of Education (1947) also advocated educational opportunity (in Article 3) and individual development:

Education shall aim at the full development of personality, striving for the rearing of the people, sound in mind and body, who shall love truth and justice, esteem individual value, respect labour and have a deep sense of responsibility, and be imbued with the independent spirit, as builders of a peaceful state and society.<sup>5</sup>

Educational opportunity and the development of individual personality and abilities were once again stressed in the *Basic Guidelines for the Reform of Education*:

(It) is necessary in today's society for every individual to develop the strength of personality to live an independent self-controlled existence. This strength does not come simply from learning various knowledge and

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<sup>3</sup> See *Post-war Developments in Japanese Education*, Vol. 1 (Tokyo: General Headquarter, Supreme Commander for the Allied Powers, Civil Information and Education Section, Education Division, 1952), p. 3.

<sup>4</sup> *Report of the United States Education Mission to Japan*, cited by Kida et al., "Japan" in Thomas and Postlethwaite, ed., *op. cit.*, pp. 57-80.

<sup>5</sup> *Fundamental Law of Education, 1947*, Article I, collected in Passin, *op. cit.*, pp. 301-302.

skills. Rather it comes as the individual's personality develops to the point where it has the capacity to integrate these various abilities and talents in a meaningful whole. The objective of education for the development of personality should be to help people acquire the abilities for building a satisfactory and spontaneous life, for adapting to social realities, and for the creative solution of difficulties.<sup>6</sup>

Interestingly, educational opportunity and individual development appeared again in the first report of the Provisional Council on Educational Reform. Among the eight-point guidelines, the first and second were related to individual development, and the fourth was about educational opportunity.

From the above documents, it is clear that throughout the post-war period, Japan has placed much emphasis on the development of individual personality and abilities as well as the provision of educational opportunity as its major educational objectives.

## **2. Structure of the Educational System**

To secure equal opportunities, three principles were accepted as guidelines for the establishment of the postwar educational system. The first was the establishment of a single-track system of 6-3-3-4 stages - 6 years of primary education, 3 years of lower-secondary education, 3 years of upper-secondary education, and 4 years of university education. Compulsory education was extended to 9 years. Therefore, not only primary but also lower-secondary education were made compulsory. At the time of the 1947 reform, this single-track system was considered best suited to secure equal opportunities. However, the system was later modified to provide diversifica-

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<sup>6</sup> Japan. Central Council for Education, *Basic Guidelines for the Reform of Education* (Tokyo: Ministry of Education, 1972), p. 7. The necessity of realizing people's national identity is mentioned again in the report, but is complemented by the expression that "their national tradition should contribute to the peace of the world and the welfare of mankind through the development of a distinct but universal culture." *Ibid.*

tion in order to meet the changing demands from different sections of society.<sup>7</sup> The second principle stressed liberal education, and the third one was the establishment of co-education throughout the school system. In other words, the main emphasis was to establish a school system of minimum discrimination in accordance with the democratic spirit expressed in the Fundamental Law of Education.<sup>8</sup>

Japan's educational institutions can be classified into three types. Their source of finance is also different. The national institutions are directly financed by the central government, the public ones by the local authorities (prefectures or municipalities), and the private ones by private organizations. However, the structure of the institutions, the curriculum and the qualifications of teachers are all subject to the national laws and regulations. The private institutions enjoy exemption only in the field of religious education.<sup>9</sup> The academic school year in Japan corresponds with the fiscal year, beginning on 1st April of each year. The primary and lower-secondary schools have three terms: April to mid-July, September to late December, and January to late March. The upper-secondary schools may have either two or three terms but the universities usually have two semesters.<sup>10</sup>

### *Pre-Primary Education*

Pre-primary education is not a part of compulsory education. Hence, even in public institutions, the parents are often charged tuition fees. There are two types of institutions. Day nurseries (*hoikusho*) cater for children under six. They are run by the Ministry of Social Welfare and are for those who are considered to be in need of institutional care. Kindergartens (*yochien*) admit children of three, four or

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<sup>7</sup> Kobayashi, *Society, School and Progress in Japan*, p. 125.

<sup>8</sup> Kuruma, *op. cit.*, p. 270.

<sup>9</sup> Kobayashi, *op. cit.*, pp. 124-125.

<sup>10</sup> Ronald S. Anderson, *Education in Japan: A Century of Modern Development* (Washington, D.C.: United States Department of Health, Education and Wealth, national Institute of Education, 1975), p. 107.

five years of age, offering them three-, two- or one-year courses respectively.<sup>11</sup> The aim of kindergarten education, according to the School Education Law (Article 78), is to cultivate good habits, the spirit of co-operation and independence, a right understanding of and a right attitude towards the society, creative expression through such means as music, dance and painting, and to teach the proper use of language. To achieve all this, the curriculum covers six areas: health, social life, nature, language, music, and art, as prescribed by the Curriculum Standards for Kindergartens issued by the Ministry of Education in 1956 and 1964.<sup>12</sup>

There has been great social demand for kindergarten education and those who wanted to send their children into a kindergarten were two or three times the number of those who actually could be admitted in the early fifties.<sup>13</sup> Hence, many private institutions have been established to cater for the widespread social needs. In 1980, 73 per cent of enrolments were in private schools. The number of total enrolments amounted to 2.4 millions and there were 14,893 kindergartens. The percentage of children in the first year of primary schools who had received kindergarten education was 64.4. This proportion rose considerably in the 1960s and early 1970s, but has become nearly static since 1976.<sup>14</sup>

### *Primary Education*

Primary, or elementary, education is compulsory for all children from six to twelve years of age. It is seen as an essential part of Japan's development into a modern state. In addition to the cultivation of right attitudes towards life and

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<sup>11</sup> Cowen and McLean, eds., *op. cit.*, p. 224 and Kobayashi, *op. cit.*, p. 127.

<sup>12</sup> Kobayashi, *op. cit.*, p. 127.

<sup>13</sup> See Masako Shoji, "Preschool System in Japan", *Education in Japan: Journal for Overseas*, 2, 1967, 112. One reason for the increasing social need for pre-primary education is the increase of female workers. See Shigeru Mori, "The Present State and the Problem of Preschool Education", *Education in Japan: Journal for Overseas*, 3, 1975, 24.

<sup>14</sup> It was 28.7 per cent in 1960, 41.3 per cent in 1965, 53.8 per cent in 1970, and 63.5 per cent in 1975. See Cowen and McLean, eds., *op. cit.*



society and good habits, Japanese primary education, according to the School Education Law (Article 18), aims at the training of basic skills with regard to food, clothing, housing, industries, etc., and the training of abilities in language and mathematics.<sup>15</sup>

The curriculum prescribed for the Course of Study covers eight areas. Each week, according to the specific grades or years, students are taught social studies for 7 to 9 hours, arithmetic for 2 to 4 hours, science for 2 to 4 hours, music for 2 to 3 hours, arts and crafts for 2 to 3 hours, physical education for 2 to 3 hours, morals for 1 hour, and students of the fifth and sixth grades attend 2 hours of home-making also (see Table 3.1.1). A subject hour at this level is 45 minutes. Usually all subjects are taught by one class teacher but there are also some specialized teachers. Besides attending 24 to 31 class hours for regular subjects per week, students also join some special curricular activities which include club activities for 2 to 3 hours per week after school, and home-making periods and assemblies for about 1 hour on Saturday morning. There are also student government meetings and other regular school events such as ceremonies, athletic meetings, literary exercises, school excursions, and so forth.<sup>16</sup>

Since the 1947 provisional Course of Study for Elementary Schools was issued, it has been revised in 1958 and 1971. The 1958 revision emphasized the strengthening of moral education, the upgrading of basic scholastic abilities, the advancement of education for science and technology, and the improvement of teaching of geography and history. The 1971 version was intended to improve the curriculum to place emphasis on developing balanced personality, alleviating excessive work-load, keeping the content of teaching abreast with the progress of society, allowing more flexibility in teaching, and integrating the the content of teaching in primary and secondary schools.<sup>17</sup>

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<sup>15</sup> Central Council for Education, *op. cit.*, p. 79.

<sup>16</sup> Anderson, *op. cit.*, pp. 112-113.

<sup>17</sup> Cited by Kobayashi, *op. cit.*, pp. 129-130.

As in many countries, the most effective teaching of basic skills and attitudes take place at the primary level, the subjects most effectively taught in Japan are language, music, arithmetic and morals. And there is a tendency to expand and make more rigorous the curriculum contents in each revision of curriculum, with the idea that more subject matter of greater difficulty should be taught at an earlier age. The enrolment rate at this level has been as high as over 99 per cent since 1920, which shows an extraordinary achievement by the Japanese Government in educating the general public. In 1980, there were about 12 million primary school pupils.<sup>18</sup>

### *Lower-Secondary Education*

Japan's five years of secondary school education in the pre-war period was split into three years of lower-secondary school (or junior high school) and three years of upper-secondary school (or senior high school). Lower secondary schooling is compulsory, catering for children of 12 to 15 years of age. There is normally no entrance examination into lower-secondary schools, except in the case of the most prestigious ones. The enrolment in 1980 was about 5 million. The aims of lower-secondary education are threefold, as stated in the School Education Law (Article 36): (1) to cultivate the qualities necessary for the members of society and the State; (2) to cultivate the fundamental knowledge and skill for the vocations required in society, an attitude of respect for labour, and the ability to select future courses according to individuality; and (3) to promote social activities in and out of schools, to guide sentiment rightly, and to cultivate fair judgement.

In the curriculum for the lower-secondary school, some specialization is introduced to cope with the different aptitudes and interests of pupils, and each school has the right to adapt the curriculum to local needs and to its students' stage of

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<sup>18</sup> Anderson, *op. cit.*, p. 122; Cowen and McLean, eds., *op. cit.*; and Kobayashi, *op. cit.*

development. With effect from 1st April 1972, the minimum programme for each student is 33 or 34 hours per week, 6 per weekday and 4 on Saturday. A subject hour at this level is extended to 50 minutes. In the first two years, 30 hours of studies are in compulsory subjects and 4 in electives. The compulsory subjects include 5 hours of Japanese language, 4 to 5 hours of social studies, 4 hours of mathematics, 4 hours of science, 1 to 2 hours of music, 1 to 2 hours of fine arts, 3.5 hours of health and physical education, 3 hours of industrial arts and home-making, 1 hour of morals, and also 1.5 hours of special curricular activities. For the 4 hours of elective subjects, foreign languages comprise 3 hours, and most students study English. Other subjects are agriculture, trades and industries, business, and fisheries, which comprise 1 hour in the first two years and 2 hours in the third year. As most students choose English as their elective subject, in practice, they have very little choice. The allocation of subject hours for different years is shown in Table 3.1.2.

Instruction at this level is departmentalized to a large extent and the majority of teachers are specialists in one or two subjects. Four major subjects - Japanese, social studies, mathematics and science - receive the greatest attention. Technical education at this level, despite being important to Japan's industrial progress, is still generally unpopular.<sup>19</sup> The *Basic Guidelines for the Reform of Education* stresses that "while students at this stage will still receive some common courses, this is the point where their educational careers will begin to differentiate".<sup>20</sup>

### *Upper-Secondary Education*

Although compulsory education ends at 15, the proportional increase of children continuing their education in upper-secondary school has been phenomenal. In 1945, it was 42.5 per cent, but in 1980 it increased to 94 per cent, with an

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<sup>19</sup> Anderson, *op. cit.*, pp. 127-128 & 142-143.; Cowen and McLean, eds., *op. cit.*

<sup>20</sup> Central Council for Education, *op. cit.*, p. 12.

enrolment of about 4.6 million. All upper-secondary schools charge fees and the private school fees may be much higher than the public school fees. However, the proportion of private school enrolment at this level is much higher than that at the lower-secondary level. In 1984, it was 28 per cent at the upper-secondary level but only 2.9 per cent at the lower-secondary level.<sup>21</sup> To enter an upper-secondary school, a student has to pass an entrance examination, and all schools consider the reports from the principal of the applicant's lower-secondary school.

The aims of upper-secondary school education as prescribed by the School Education Law (Article 41) are mainly (1) to help students become able members of the society and the State, (2) to help students decide on their future course according to their individual abilities, to foster the higher general culture, and to make them skilled in the technical arts, as well as (3) to cultivate a broad and deep understanding and the capacity for sound judgement regarding society and to promote the development of their personality. The importance of helping students decide on and qualifying them for their future careers is mentioned at this level.

To prepare the students for higher education and work after graduation, general and specialized courses are provided. The general courses are divided into a terminal general course, the academic preparatory course and a course combining the two. Nearly 70 per cent of students are enrolled in the general courses. The specialized courses are also divided into non-vocational courses (such as mathematics, music and fine arts) and vocational courses (such as agriculture, fishery, home-making and nursing). In 1970, about one-third of the upper-secondary schools were of the "comprehensive" type, offering both general and specialized courses, more than one-third of them offered only general courses, and the rest of them offered only specialized courses. There is an increase in the number of schools offering specialized

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<sup>21</sup> *Education in Japan: A Brief Outline* (Tokyo: Mombusho, 1984), p. 5; Anderson, *op. cit.*, p. 147; and Cowen and McLean, eds., *op. cit.*, p. 226. Private schools may charge fees four times as much as the prefectural public schools. In 1972, prefectural public schools charged about US\$31 to US\$40 a year, however private schools on average charged US\$161 per year. See Japan. Agency for Cultural Affairs, *Outline of Education in Japan* (Tokyo: The Agency, 1972), p. 50.

courses. The option of specialized courses was introduced into the Course of Study for High Schools in 1960 in response to demands from many different sections of the society. As there was technical colleges (*kosen*) offering vocational courses, the single-track system at this level is slightly modified.

The students at this level are required to take 85 “credits” or credit hours to graduate. A credit hour is 35 class sessions of 50 minutes each, i.e. one class session per week for a whole school year. The minimum requirement for all students, regardless of course, is two courses of Japanese language, four courses of social studies (including ethics-civics and political science-economics), two courses of science, one course of mathematics, health, physical education, foreign language, fine arts, and home-making (for girls). Courses are divided into A and B courses. The A courses are the advanced and more intensive courses. Those in the specialized stream take 40 to 48 hours of vocational subjects in addition to 51 to 61 hours of general courses. Students on average take 35 credits a year (The distribution of credit hours for each year is shown in Table 3.1.3). There is no school leaving examination, but a diploma is awarded to the student on completion of the graduation requirements.

In addition to full-time courses, there are part-time and correspondence courses at this level. The full-time courses take three years, and the others take four years or more. Most of the part-time courses are evening courses but there are also some day courses. The part-time and correspondence courses lead to the same qualifications as the full-time courses and over half of the upper-secondary students are students of part-time and correspondence courses.<sup>22</sup>

### *Higher Education*

There are three main types of higher education institutions in Japan: univer-

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<sup>22</sup> Anderson, *op. cit.*, pp. 163-164 & 177; Cowen and McLean, eds., *op. cit.*, pp. 226-227; and Kobayashi, *op. cit.*, pp. 132-133.

sity (*daigaku*), junior college (*tanki-daigaku*), and technical college (*koto-semmon-daigako*). Universities and junior colleges admit candidates who have completed upper-secondary education, and they also require candidates to pass an entrance examination. To enter national and public universities, candidates have to sit for a preliminary national entrance examination (the Joint First Stage Achievement Test, which was inaugurated in 1979) before they take the entrance examinations of the individual universities. The upper-secondary school reports of the candidates are also taken into account.

University education aims at the pursuit of higher learning and technical arts, giving broad general culture, developing intellectual, moral, and practical abilities (School Education Law, Article 52). The university undergraduate course lasts four years, leading to the bachelor's degree - *gakushi*. For the first two years, students study subjects of general education in the humanities, social science and natural science; foreign languages; health and physical education; and professional or vocational education. The medical and dental courses last six years, with the first two years comprising compulsory courses and the last four years consisting of professional training. There is no final degree examination as such, and graduation depends on the completion of the required number of credits.

Almost half of the universities have graduate schools (*daigakuin*) offering advanced courses leading to the master's or doctor's degrees. The master's degree is granted for two years of full-time study beyond the bachelor's degree, including 30 credit hours and a thesis. The Japanese master's programmes generally place more stress on specialized studies than the American programmes. The doctoral degrees require five years of full-time study, including 55 credit hours and a thesis. There are also three-year programmes for those who have obtained the master's degree.

Universities in Japan can be classified into five groups: the national "comprehensive" universities, the State "composite" universities, the State "single-faculty"

universities, women's universities, and private universities. The national "comprehensive" universities are composed of six to ten faculties and a varied number of research institutes. They are the former imperial universities or universities of arts and sciences, distinguished by their high academic standard. The State "composite" universities were all set up after the 1949 reform as single-faculty government universities, technical colleges, or normal schools. They have few faculties. They offer mainly undergraduate courses. And they usually serve as regional or local centres of higher learning. The State "single-faculty" universities each concentrate on one speciality. Some of them have a long history and high prestige in particular fields, such as Hitotsubashi University in the social sciences, Tokyo Institute of Technology, Tokyo University of Foreign Languages, and Tokyo University of Fine Art and Music. Women's universities generally offer courses in liberal arts and home-making, but some specialize in professional education such as medicine and pharmacy. Private universities can themselves be further divided into the above four types. They constitute the largest group of universities in Japan.

National universities generally have the highest prestige and the most prestigious ones are the Universities of Tokyo, Kyoto, Osaka, Nagoya, Tohoku in Sendai, Kyushu in Fukuoka, and Hokkaido in Sapporo, which were all formerly known as the imperial universities. However, there are also some private universities which have high standing, such the universities of Keio and Waseda, both of which are in Tokyo. As there is a large discrepancy between the national universities and private universities in respect of facilities, the quality of staff, social prestige and financial base, and graduates from the most prestigious universities generally have the best career prospects, the competition of entrance into these prestigious universities is intense. It has resulted in quite a number of *ronin* students, who spend years cramming to resit the matriculation examinations rather than enter an inferior university.<sup>23</sup>

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<sup>23</sup> In Japan, there is "an over-eagerness to obtain higher education, which is all about a situation in which almost everyone wants to go to university, particularly a prestigious university.... Japanese do not attach importance so much to 'what' a person studied as to 'where' that person studied, and the whole nation tends to place enormous emphasis on educational background." See Shigeru

Junior colleges offer two- or three-year courses. Nearly 90 per cent of the students are women, and about 90 per cent of the institutions are privately run. Their courses lead to a certificate, not a degree; but the credits obtained may be counted towards a bachelor's degree. The two-year certificate requires the completion of 62 credits; of these 12 must be in general education (humanities, natural and social sciences), 2 in physical education, 24 in the major, and 24 in electives. The three-year certificate requires 93 credits, 18 of them in general education, 3 in physical education, 26 in the major, and 16 in electives.

Some universities and junior colleges provide part-time and correspondence courses. The graduation requirements are the same as those for the full-time courses. In 1970, 10 per cent of university students and 14 per cent of students in the junior colleges were enrolled in part-time courses.

Technical colleges were established in 1962. They admit students who have completed lower-secondary education. They combine upper-secondary and junior college levels and may be under national, public or private auspices. The regular course takes five years (since 1974), including 2,975 hours of general education (most of which is studied in the first three years) and 3,570 hours of the technical major (more than the 3,000 to 3,200 hours required for a university major in technology). The technical college curriculum, though not parallel to the university level, covers nearly the same subject matter as a university technical department, and the same amount of general education (The required curricula in the university, junior college and technical college are shown in Table 3.1.4). Hence, students who graduate from a technical college are entitled to apply for admission to the upper division of an undergraduate course at university.

Higher education has flourished in post-war Japan. It provides the country with leaders of government and industry, and therefore shares the credit for Japan's

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Makino, "Japan's Education System and Its Social Implications", *Japan Education Journal* (27), (Special Issue: Education), 1986, 6.



economic miracles. There has been an increasing social demand for higher education in Japan. In 1981, the proportion of the 20-24 age group enrolled in higher education was 33 per cent (see Figure 3.1.3).<sup>24</sup>

### *Special Education*

In Japan, children receive a medical examination before entering school. Those who are identified physically or mentally disabled enter special schools (*tokushu-kyoiku-gakko*). Special education for blind and deaf children and for mentally and physically disabled children has been compulsory since 1948 and 1949 respectively. Special education is provided from pre-primary level to upper-secondary level. In 1981, there were 877 special schools with 4.7 million pupils.<sup>25</sup>

### *Curriculum Development*

The school curriculum is outlined in the Course of Study prescribed by the Ministry of Education, in which the basic framework for the curriculum for the three levels of schooling (primary, lower-secondary, and upper-secondary) including the objectives, instructional content, and standard time allocations are stated. The Course of Study is drawn up on the recommendation of the Curriculum Council, the Minister's advisory body. The Council prepares the basic guidelines for revising the Course of Study at the request of the Minister. Based on the Course of Study, each school organizes its own curriculum according to its particular needs, but there is in practice little variation in curriculum among schools as a result of the requirements

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<sup>24</sup> Anderson, *op. cit.*, pp. 197-219; Cowen and McLean, eds., *op. cit.*, pp. 230-2; Kobayashi, *op. cit.*, pp. 142-145; Kanaya, "Japan: System of Education" in Torstein Husen and T. Neville Postlethwaite, eds., *International Encyclopedia of Education*, Vol. 5 (Oxford: Pergamon, 1985), p. 2768; Kazuyuki Kitamura and William K. Cummings, "Japan" in Asa S. Knowles ed., *The International Encyclopedia of Higher Education*, Vol. 6 (San Francisco: Jossey-Bass Publishers, 1978), p. 2366; and *Education in Japan: A Brief Outline*, p. 8.

<sup>25</sup> Cowen and McLean, eds., *op. cit.*, p. 227.

of the examination system and the compulsory use of approved textbooks.<sup>26</sup>

All textbooks must be authorized by the Ministry. They are developed by private publishing companies written to fit the most recent courses of study, and approved drafts are published as authorized textbooks for adoption in the schools. Textbooks chosen by schools are distributed free to pupils at the compulsory education levels. Teacher's guidebooks are usually prepared by curriculum specialists in the Ministry with the assistance of teachers who are involved in the deliberations of the Curriculum Council.<sup>27</sup>

### *Teacher Training*

At present, all teachers are trained in the universities or junior colleges approved by the Ministry of Education. In 1979, 50.8 per cent of primary teachers, 68.9 per cent of lower-secondary school teachers, and 86.3 per cent of upper-secondary school teachers had completed an undergraduate or postgraduate course at a university, while most of the rest had completed a two-year teacher training course beyond secondary education (see Table 3.1.8). Correspondence and summer courses are organized by some universities for those primary teachers who have not received teacher training (16 per cent in 1977). Teaching certificates are granted to all university and college graduates who have acquired the prescribed number of credits in general, special, and professional subjects. Certificates, which are valid in all prefectures, are granted by prefectural boards of education. There are two classes of certificate. Second class certificates may be granted to junior college graduates or their equivalent. First class certificates for kindergartens, primary and lower-secondary teachers may be granted to university graduates or their equivalent.

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<sup>26</sup> "Gradually, however, the character of the Course of Study changed and it became the authoritative standard of education not only for textbooks but also for the actual instruction in school." See Japanese National Commission for Unesco, *Development of Modern System of Education* (Tokyo: The Commission, 1960), p. 92.

<sup>27</sup> Cowen and McLean, eds., *op. cit.*, pp. 227-229 and Kanaya, *op. cit.*, p. 2270.

lents, but first class certificates for upper-secondary teachers are granted only to graduates with master's degrees. To become school principals, teachers must hold first class certificates. Teachers working in national schools or local public schools are national public officials or local public officials respectively. They are granted permanent tenure after a probationary service of six months.<sup>28</sup>

### *Non-Formal Education*

In Japan, non-formal education is known as social education (*Shakai kyoiku*). It is defined by law as systematic educational activities not provided by formal schooling.<sup>29</sup> Social education is promoted with the purpose of providing opportunities for further education for adults whose education has been interrupted or who have had no opportunity to continue beyond compulsory education. It is also a means to help adults improve the quality of their lives and to use their leisure time profitably, and to strengthen their social consciousness.

Non-formal educational activities are organized by both governmental and non-governmental bodies, and are mainly supported by four Ministries. The Ministry of education is in charge of learning courses for different groups in the society (adult schools, youth classes, women's classes, courses for the aged, and others), correspondence courses for basic-skill development, and long courses conducted by upper-secondary schools and universities. Major public facilities for these activities include citizens' public halls (*komin-kan*), youth centres, children's nature centres, museums, libraries, and centres for physical training and recreation. The most important of these are the citizens' public halls which exist in most municipalities. The Ministry also takes charge of special training schools and miscellaneous schools (*kakusho-gakko*) which are non-formal institutions offering vocational and technical

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<sup>28</sup> Kanaya, *op. cit.*, pp. 178-180; Kida et al., *op. cit.*, pp. 76-80; and Cowen and McLean, eds., *op. cit.*, pp. 232-233.

<sup>29</sup> Social Education Law (1949), Article II.

training courses equivalent to those at the upper-secondary and junior college levels. Both the Ministry of Education and the Ministry of Posts and Tele-communications support educational programmes through radio and television. The Ministry of Forestry and Fishery provides various training courses in agriculture, forestry and fishery, mainly for young farmers, fishermen, and forestry workers. The Ministry of Labour sponsors programmes in vocational training for working youths.

There are also various voluntary social education organizations and non-governmental bodies such as newspaper companies, broadcasting companies, and department stores in large urban areas which take part in providing a variety of courses ranging from yoga and Western modern dance to foreign languages, classical Japanese literature, and traditional and modern art.<sup>30</sup>

### **3. Educational Administration**

As far as educational administration is concerned, the First Report of the United States Education Mission (1946) stressed on the need to localize the formerly centralized educational system.<sup>31</sup> To achieve localization or decentralization, three laws were promulgated - the Board of Education Law (1948), the Ministry of Education Establishment Law (1949) and the Private School Law (1949). Article 1 of the Board of Education Law stated that the Law was to facilitate an educational administration "based on equitable popular will and actual local conditions" and "the conduct of education without submitting to undue control". The Board of Education Law initiated two kinds of boards: the prefectural board of education and the municipal board of education. In both boards, one member was to be elected

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<sup>30</sup> Cowen and McLean, eds., *op. cit.*, pp. 231-232; *Facts about Japan: Education System* (Tokyo: Ministry of Foreign Affairs, 1985), pp. 3-4; Kanaya, *op. cit.*, pp. 2768-2769; Kida et al., *op. cit.*, p. 64; and Michiya Shimbori and Kojiro Kishimoto, "The Reform and Expansion of Social education", *Education in Japan: Journal for Overseas*, 8, 1975, 86-98.

<sup>31</sup> Cited by Wasuke Soramoto, "Educational Administration in Japan", *Education in Japan: Journal for Overseas*, 2, 1967, 104.

from among the members of the local assembly and the rest were to be publicly elected.<sup>32</sup> However in 1956, the Board of Educational Law was replaced by the Law Concerning the Organization and Functions of Local Educational Administration, according to which the board members were to be appointed by the head of the local self-governing body. At the same time, the Law gave the Ministry of Education certain powers of control over the local boards. As a result, the control of the central government over local boards through governors and heads of local bodies has become significantly greater.<sup>33</sup>

Educational administration in Japan can be described at three levels: national, prefectural and municipal. At the national level, the Ministry of Education (*Mombusho* or, to give it its full name, the Ministry of Education, Science and Culture) is the central educational authority. The Ministry conducts research and produces plans to promote education in and out of school, higher learning, and culture. It prepares budget estimates, drafts educational legislation and formulates educational policies. It administers a number of universities, junior colleges, technical colleges, museums, youth centres, and research institutes attached to national universities. It sets up standard guidelines for curriculum, courses and credit requirements for all institutions from kindergartens to higher education. Above all, it supervises, advises and gives financial assistance to the local educational authorities and requires reports of educational activities which are under the jurisdiction of the local authorities.<sup>34</sup>

Japan's 47 prefectures (*To, Do, Fu, Ken*) are further subdivided into 3,262 municipalities. Although the municipalities are under the jurisdiction of the prefectures, they are autonomous in terms of local administration machinery. In every

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<sup>32</sup> The Board of Education Law, Chapter II, Section I.

<sup>33</sup> "The present system still retains essential elements of decentralization, but in general it is coloured by the tone of centralization," says Tetsuya Kobayashi. Moreover, the "lines of command" from the Ministry of Education to the local boards and individual schools become clear. See Kobayashi, *op. cit.*, p. 83.

<sup>34</sup> The Ministry of Education Establishment Law (1949), Articles IV & V; Cowen and McLean, eds., *op. cit.*, p. 233; and Kobayashi, *op. cit.*, pp. 71-72; and Kida et al., *op. cit.*, p. 66.

prefecture and municipality, there is a board of education which serves as the local education authority. The board consists of five members, each holding office for four years. The members are appointed by the prefectural governor or the municipal mayor with the consent of the prefectural assembly or the municipal assembly respectively. The prefectural superintendent of education, the chief executive officer of the board, is appointed by the prefectural board of education, with the approval of the Ministry of Education, while the municipal superintendent of education is appointed by the municipal board with the approval of the prefectural board.<sup>35</sup>

The major functions of the prefectural board of education are (1) to administer prefectural institutions other than universities or junior colleges, (2) to appoint and dismiss teachers of primary, lower-secondary and part-time upper-secondary schools which are administered by municipalities, and pay the salaries of these teachers, (3) to provide in-service training and issue teaching certificates, (4) to supply educational materials, (5) to promote special educational activities and protect cultural assets, and (6) to supervise, advise and give financial assistance to the municipal boards of education and require them to submit reports.

The prefectural governors also have some responsibilities for education. Generally, they have to administer prefectural universities and junior colleges, to supervise private primary, secondary and miscellaneous schools and kindergartens, to prepare the prefectural budget for all sectors including education, and to acquire and dispose of prefectural educational properties.

At the municipal level, the municipal boards of education are required (1) to administer municipal educational institutions, mainly primary and lower secondary schools, citizens' public halls and other educational establishments for adults and youths, (2) to appoint and dismiss teachers of municipal institutions other than primary, lower-secondary, part-time upper-secondary schools, junior colleges, or uni-

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<sup>35</sup> Hiroshi Kida, "Educational Administration in Japan", *Comparative Education*, 22(1), 1986, 8.

versities, (3) to organize curricula for the municipal primary and secondary schools, and (4) to adopt textbooks from the approved list prescribed by the Ministry of Education.

As prefectural governors, the municipal mayors also have educational responsibilities. They administer municipal universities and junior colleges, and appoint and dismiss teachers of these institutions. They have to prepare the municipal budget for all sectors including education, and are responsible for acquiring and disposing of municipal educational property.<sup>36</sup>

#### **4. Supervision**

Supervision in education is carried out by supervisors and subject specialists at all three levels of administration. The supervisors from the Ministry of Education are responsible for primary and secondary education in general. They supervise the local boards whilst the local boards supervise the schools. The subject specialists are responsible for curricula. They have to undertake research in curriculum development at the school level and in the subject areas to which they are assigned.

The supervision sections in prefectural boards of education conduct conferences and workshops for teachers and principals and publish handbooks for teachers, based on central policy and the specific circumstances of their prefectures. They also give guidance and advice to municipal boards. Supervisory personnel are mainly teacher consultants who are subject specialists. They visit schools, demonstrate new teaching methods and provide in-service training for teachers in subject-matter areas. In the field of social education, social education supervisors and consultants are also appointed. All supervisors must be experienced professional educators, and the teacher consultants must have at least five years of teaching experience and a

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<sup>36</sup> Cowen and McLean, eds., *op. cit.*, pp. 233-235 and Kanaya, *op. cit.*, p. 2769.

first-class teaching certificate.<sup>37</sup>

## 5. Educational Finance

As with education administration, the financial support for education in Japan is shared by the three levels of government, with the national government providing 48 per cent, the prefectural authorities 28 per cent and the municipal authorities 24 per cent of further expenditure on education in 1979.<sup>38</sup>

The expenditure of the national government on education mainly falls into two categories: (1) expenditure for national educational institutions and (2) subsidies for education in prefectures and municipalities (as well as private educational institutions and other bodies). In 1950, the Diet enacted the Local Financial Equalization Grant Law. The Law placed full responsibility on the national government for the support of all local governmental functions, including education.<sup>39</sup> The Law was later renamed the Local Allocation Tax Grants Law, according to which the government designated a certain proportion of the income tax (32 per cent in 1976-1977) to provide grants for local government. As the grants were not specifically for education, the financial assistance for education was only an indirect one. This situation satisfied neither the national nor the local governments. Therefore in 1953, the government offered direct subsidies for local education, which was a return to the earlier system. The first was a "salary subsidy", and then "promotional subsidies" were added to encourage individual schools to improve educational facilities. These direct subsidies were given in addition to the grants. At present, the direct subsidies cover half of the salaries for staff in all public compulsory-education schools (the rest paid by the prefectural governments), half of the teaching materials

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<sup>37</sup> Kuruma, *op. cit.*, p. 269; Cowen and McLean, eds., *op. cit.*, pp. 235 & 240; Anderson, *op. cit.*, pp. 273-274; and *Post-war Developments in Japanese Education*, Vol. 2, pp. 237-242.

<sup>38</sup> Cowen and McLean, eds., *op. cit.*, p. 240.

<sup>39</sup> *Post-war Developments in Japanese Education*, Vol. 1, pp. 160-161.



for all public compulsory-educational schools (the rest paid by both the prefectural and municipal governments), and between 50 and 67 per cent of the costs of new construction or of the improvement of existing public compulsory-school buildings. The remainder is borne by the municipality.

Educational expenditure of the prefectures includes expenditure on educational administration, salaries of personnel in the municipal compulsory-education schools and part-time upper-secondary schools, subsidies to municipalities for miscellaneous educational purposes, and subsidies to private secondary schools for science, technology and vocational education.

Educational expenditure of the municipalities includes some of the costs of operating public kindergartens, compulsory-education schools and other schools established and administered by municipalities, and providing adult education through citizens' public halls, libraries, and museums.<sup>40</sup>

## **B. The Educational Environment of Singapore**

### **1. The Objectives of Education**

The PAP government has sought to relate Singapore's education to its political and social needs. This view of education is expressed in the Broad National Aims of Education stated by the Ministry of Education:

The main aim of education in Singapore is to develop the potentialities of every child physically, mentally and morally to the fullest extent possible in accord with the needs and interests of society by ensuring the optimum acquisition of experience, knowledge and skill, each according to his

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<sup>40</sup> Anderson, *op. cit.*, pp. 275-277; Cowen and McLean, eds., *op. cit.*, pp. 240-241; and Kida et al., *op. cit.*, pp. 67-69.

intelligence, ability, aptitude and interest.<sup>41</sup>

Based on this main objective, education is perceived as performing two primary functions: (1) to foster national consciousness and national identity in a multi-cultural society, and (2) to develop Singapore's natural resource - its people - by providing the necessary experience, knowledge and skill for modernizing the country and equipping the country as an independent commercial and industrial city state.<sup>42</sup>

The government's tripartite policy of equality (equal treatment for all the four languages), unity (the adoption of Malay as the national language) and relevance (an emphasis on technical and scientific education to meet the needs of an industrial society) is thus related to these two educational functions. Equal treatment of the language streams and the adoption of the national language are measures designed to foster national unity. The Education Report of 1959 states:

To act as a bridge to span simultaneously the four streams of education and to unify a community composed of different races exposed to communal suspicion and prejudice, the setting up of one national language is vital. A common link for undivided loyalty to one another and to the State is provided in the National Language.<sup>43</sup>

Further, the emphasis on technical and scientific education is a measure to help in the furtherance of the modernization and industrialization of the country:

Industrialization is the key to survival. To increase industrial productivity, potential skill must be trained. So a start in developing the latent skills must be made in the schools. The new educational policy would ensure that students have increased facilities for training as craftsmen, technicians, scientists and engineers.<sup>44</sup>

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<sup>41</sup> Singapore. Ministry of Education, "Singapore" in Unesco, *World Survey of Education*, Vol. 5 (Paris: The Unesco Press, 1974), p. 1033.

<sup>42</sup> Cowen and McLean, eds., *op. cit.*, p. 462.

<sup>43</sup> Singapore. Ministry of Education, *Annual Report 1959* (Singapore: Government Printing Office, 1961), p. 1.

<sup>44</sup> *Ibid.*

Based on these views of educational objectives and functions, the PAP government has tried to achieve the following:

1. The provision of at least ten years' schooling for every child from the age of six regardless of sex, race, wealth or status, and free primary education.
2. The adoption of bilingualism throughout the system, and parents are given freedom to choose the medium of instruction.
3. An emphasis on technical training and the teaching of mathematics and science subjects at all stages of education.
4. The inculcation of attitudes of social discipline and responsibility, racial harmony and loyalty to the Republic. Hence, extra-curricular activities, especially through organizations such as the National Cadet Corps, Police Cadet Corps, Red Cross Society, Scouts and Guides, are greatly encouraged.<sup>45</sup>

## **2. Structure of the Education System**

The educational system of Singapore basically follows a 6-4-2-3 pattern. However, because of the restructuring of the system to include various vocational and technical institutions at the secondary level and the introduction of the New Education System in 1980, the educational system has become more complicated and is characterized by a multi-track pattern (See Figure 3.2.1).

There are three types of schools in Singapore: government schools, government-aided schools and private schools. Most of the government schools are integrated schools with two or three language streams in one building, while many of the government-aided schools are monolingual. There are very few private schools, and most of them are kindergartens or schools run on a commercial basis providing courses in specialized fields. Primary and secondary schools are bi-sessional (divided into the morning session and the afternoon session), with a five-day school week.

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<sup>45</sup> Cowen and McLean, eds., *op. cit.*, pp. 462-463.

The school year which previously consisted of 3 terms has been changed to one of 2 semesters, each of which consists of 2 terms with a week's vacation in between. There are longer vacations at the end of the semesters in June and November. The two semester-school year permits promotion or retention of students on a semester basis instead of a calendar-year basis and makes it possible to have two intakes of Primary 1 students annually. The mid-year intake of Primary 1 students was first introduced in July 1971.<sup>46</sup>

### *Pre-Primary Education*

There are mainly three types of institutions providing pre-primary education: creches, kindergartens and children's centres. Creches cater for children from a few months old to six years, while kindergartens serve children of ages from two years and a half to six years. Children's centres cater for children from five to six plus. Most of the children who attend kindergartens are sent by their parents at the age of four or five, often for two years of pre-primary education. Those who attend creches are usually sent when they are babies until they are due to start primary schooling. Whilst kindergartens are institutions run by the People's Association and private organizations (such as church organizations and private individuals), creches and children's centres are government institutions providing day care for children of working parents.

In kindergartens, a child-centred programme of activities is encouraged, stressing all-round development and learning through experience and discovery. In creches, emphasis is placed on providing training in personal hygiene and good habits. Children are encouraged to learn through free play. For those who are near school-going age, kindergarten activities are provided. Children of poor parents are admitted to creches without charge.

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<sup>46</sup> Singapore. Ministry of Education, "Singapore", *op. cit.* and *Education in Singapore* (Singapore: Education Publications Bureau, 1972), p. 9.

Government provision of pre-primary education has increased since 1978. Enrolments in government institutions rose from 4,883 in 1975 to 11,529 in 1979. In 1979, students enrolled in government institutions comprised nearly 40 per cent of the total enrolment in pre-primary institutions, and almost half of the five year olds were receiving pre-primary education.<sup>47</sup>

### *Primary Education*

Primary education is free and practically universal in Singapore. It normally lasts 6 years from the age of six but may be completed in 8 years. The basic aim of primary education is to build a firm foundation in language and mathematics. Language teaching occupies longer teacher hours than any other subject, and all students are expected to master two languages with the exception of those in the monolingual course. During the seventies, in each week, students were taught a first language for 5.7 to 6.6 hours, a second language for 3.5 to 3.7 hours, and the national language for about half an hour. Thus, language instruction amounted to about 10 hours a week or comprised about half of the total teaching hours in a school week. Mathematics and science were the next two most important subjects. Students were taught mathematics for 3.5 to 4.5 hours and science for 1.5 to 2.3 hours in each week. Other subjects taught in primary schools were history, geography, art, handwork and needlework, music, civics, physical education, and health education. In addition, students attend half an hour of assembly (see Table 3.2.1).<sup>48</sup>

Since 1980, a New Education System has been implemented. According to the New Education System, emphasis is placed on language learning from the first three years of primary education. At the end of Primary 3, students are streamed according to their academic ability. As a result, average or above-average students (60 per cent) will attend a 3-year normal bilingual course (N-Course); below average

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<sup>47</sup> *Education in Singapore*, pp. 18-19 and Cowen and McLean, eds., *op. cit.*, p. 463.

<sup>48</sup> *Education in Singapore*, p. 21.

students (20 per cent) will attend a 5-year extended bilingual course (E-Course); and the very weak ones (20 per cent) will attend a 5-year monolingual course (M-Course). Pupils who take the bilingual course will sit for the Primary School Leaving Examination (PSLE) at the end of the course. Those who pass the PSLE proceed to secondary schools, otherwise they are channelled to vocational schools. Those who take the monolingual course will automatically be placed in vocational schools at the end of their course. Hence, language ability is a matter of the utmost concern in primary education. A child's language ability in Primary 3 has a decisive effect on his educational future, although inter-stream transfer may take place in the later stages of primary education (see figure 3.2.2).<sup>49</sup>

Under the New Education System, the curriculum can be classified into three blocks - the English language block in which mathematics and science are taught (43 per cent of the time); the mother tongue block in which civics, history, geography, art and crafts are taught (43 per cent of the time); and the third block of physical education, music, and others (14 per cent of the time). In the first three years, stress is placed on the basics of language skills. Science is learned through language activities until Primary 3 when it is taught formally. The PSLE consists of tests in two languages, mathematics and science. About 55 to 60 per cent of the candidates pass and proceed to secondary schools. Others may stay on to resit the examination if they are within the age limit.<sup>50</sup>

### *Secondary Education*

According to the restructuring in 1961, secondary education can be followed either in academic, technical or vocational programmes right from the first year. However, in order to provide more liberal education and avoid narrow specialization

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<sup>49</sup> Seow Cheng-Hoe, Foo Lee-Hua and Doris Hsu, *Education and Examination System in Singapore* (Report presented at a course on "Innovative approaches to classroom testing and measurement in secondary science and mathematics, 1982), pp. 1-2.

<sup>50</sup> Cowen and McLean, eds., *op. cit.*, p. 464 and *Education in Singapore*, p. 188.

and rigid streaming, a common curriculum for the first two years of the secondary school course was introduced by the Advisory Committee on Curriculum Development in 1969. Under the common curriculum, in addition to the normal school subjects, all boys and 50 per cent of the girls were required to study technical drawing and workshop subjects, and the remaining 50 per cent of the girls studied home-economics. On completion of Secondary 2, students could proceed to Secondary 3 and later to Secondary 4 in the arts, science, technical or commercial streams, or they could leave the schools to join industrial training institutions.<sup>51</sup>

A further change for secondary education took place in 1981. Under the New Education System, students are streamed into three types of courses, based on their PSLE results. The best 10 per cent of students are offered a 4-year Special Course (S-Course) in secondary schools. Students study two languages (usually English and Chinese) at first language level. At the end of the fourth year, students sit for the General Certificate of Education (GCE) "O" level examinations. The S-Course is only available in the nine schools under the Special Assistance Plan. Average or above average students (30 per cent) are offered a 4-year Express Course (E-Course). This course includes learning 2 languages, one of which is at first language level and the other at second language level. At the end of the fourth year, students will also take the GCE "O" level examinations. Students who just manage to pass the PSLE (40 per cent) are offered a 5-year Normal Course (N-Course). Students in this course study 2 languages, one at first language level and the other at second language level. At the end of the fourth year, students sit for the Certificate of Secondary Education (CSE) examinations. Those who pass sit for the GCE "O" level examinations at the end of the fifth year. Those who do not qualify to enter the fifth year take up vocational training. Generally, there is no repetition, but those who are not over age are allowed to repeat if they cannot cope with the N-Course. Otherwise they are transferred to the Vocational and Industrial Training Board. There may be lateral movement of pupils between courses, depending on

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<sup>51</sup> *Education in Singapore*, p. 22.

their capabilities and performance.

The curriculum for all courses in Secondary 1 and 2 includes 8 core subjects: first language and literature, second language, primary mathematics, general science, history, geography, arts and crafts, and technical subjects or home-economics (for girls). There are also 4 non-examination subjects: moral education, physical education, singing and assembly. Of these subjects, language learning comprises 25 per cent of the school hours (9.3 hours a week), while mathematics and science comprise 27.5 per cent of the schools hours (7.3 hours a week) (see Table 3.2.3).

The curriculum for the N-Course from Secondary 3 to 5 includes 3 compulsory subjects (first language, second language and primary mathematics), 1 to 4 elective subjects (such as literature, geography, history, religious knowledge, science, biology, physics, chemistry, technical subjects, commercial subjects, music, and foreign languages), and 4 compulsory non-examination subjects (moral education, physical education, singing and assembly). Languages and mathematics comprise 50 per cent of the school hours (13.3 hours a week), elective subjects comprise 35 per cent of the schools hours, and the non-examination subjects comprise 15 per cent (see Table 3.2.4).<sup>52</sup>

Extra-curricular activities, with emphasis on mass participation, are an integral part of the school curriculum. They are compulsory in the third and fourth years of secondary schools, occupying about 3 hours weekly. To encourage participation, a student's participation in extra-curricular activities is taken into account in considering applications for scholarships, admission to pre-university classes or employment in the civil service.<sup>53</sup>

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<sup>52</sup> Seow, Foo and Hsu, *op. cit.*, pp. 2-3 and *Singapore 1983*, p. 187.

<sup>53</sup> *Education in Singapore*, p. 28 and Wilson, *op. cit.*, p. 197.



### *Vocational Education*

Vocational training is provided by 16 vocational institutes under the Vocational and Industrial Training Board (VITB), catering for Singapore's rapid industrialization. There are three-, two-, and one-year courses and other part-time courses in industrial, commercial and service skills, and applied arts leading to diplomas, certificates, National Trade Certificates and Certificates of Competency. The normal entry qualification for these courses is GCE "O" level. The VITB also provides continuing education and training (CET) programmes for workers. CET is pursued in three ways - through employer-conducted training, through employer-sponsored attendance at VITB courses specially tailored for the company needs, or through employer-sponsored enrolment in the Board's regular part-time courses. The VITB also helps employer and employee groups to formulate industry-based training courses to upgrade the workers.

Due to rapid industrialization in Singapore, there has been a great demand for vocational training. In 1982, the total full-time enrolment in the institutions under VITB totalled 10,381. The average enrolment in CET courses totalled 16,292, and the number of apprentices in industry-based training courses totalled 6,174.<sup>54</sup>

### *Higher Education*

As in Japan, there are three types of institution of higher education: junior colleges, university and technical colleges, offering pre-university education, university education, and industrial and technical training at tertiary level. Students with a good pass in the GCE "O" level examinations can be admitted to junior colleges for a 2-year pre-university courses. Others attend a 3-year pre-university course in pre-university centres or secondary schools. On completion of these courses, students

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<sup>54</sup> *Singapore 1983*, pp. 196-198.

can sit for the GCE "A" level examinations to compete for entrance to the National University of Singapore. Although the annual intake of students has been increasing in the University, the percentage of successful applicants has been dropping. In 1969, 40.9 per cent of the applicants were admitted to the University of Singapore, but in 1974, only 30.8 per cent were admitted. In 1976, out of the 11,500 candidates who sat for the GCE "A" level examinations, only 2,500 (21 per cent) were admitted into the two universities (including the former Nanyang University).<sup>55</sup>

Prior to 1980, there were two universities in Singapore: the University of Singapore and Nanyang University. The former operated on the British pattern, and the latter mainly catered for the students from Chinese medium secondary schools, with courses conducted in Mandarin. In 1980, the two universities merged together to form the National University of Singapore (NUS).

The NUS has eight faculties, namely Arts and Social Sciences, Accountancy and Business Administration, Science, Engineering, Law, Dentistry, and Medicine. The University admits students with good grades in the GCE "A" level examinations. Pass degree courses in arts and social sciences, science, and business administration take three years. Students reading for a first degree in arts and social sciences have to take 3 subjects and must follow a course in natural sciences in the Science Faculty in the first year. Students working for a science degree must, on the other hand, select one of the six specially designed courses offered by the Faculty of Arts and Social Sciences in the second and third years. Moreover, all students from the Faculties of Engineering, Science, and Business Administration who do not have the required level of proficiency in English must attend an English Language course. These measures have been introduced to provide students with a broader education and improve links between departments. There is an examination at the end of each year which students must pass in order to proceed. Honours degree courses require an additional year to complete. Students selected to proceed to the

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<sup>55</sup> Seow, Foo and Hsu, *op. cit.*, p. 3; Lim Chong Yah, *Education and National Development* (Singapore: Federal Publications Ltd., 1983), pp. 41 & 71.

honours courses must specialize in one subject in that year.

Postgraduate studies are offered in all the faculties, leading to diplomas, Master's degrees, and Doctorate degrees. Diploma courses normally last for one-year, but the social studies diploma courses require two years of study. The master's degree programmes normally involve a minimum of one year of study, and the doctorate degree programmes normally involve at least two years. There are three postgraduate schools in the NUS for medical studies, dental studies and management.

Industrial and technical training at tertiary level is offered by the Singapore Polytechnic, the Ngee Ann Polytechnic, and the Nanyang Technological Institute. The Singapore Polytechnic, set up in 1954, was the first technical institute established, and has always used English as the medium of instruction. It aims at producing highly skilled practice-orientated technicians to supervise skilled craftsmen and to man technologically advanced machine systems. It offers courses to both "O" and "A" level holders on a three-year full-time or five-year part-time basis, leading to Technician Diplomas. There are also two-year full-time courses leading to Technical Certificates. Post-diploma courses are also available. The graduates of the Polytechnic who have earned Certificates of Merit are allowed to apply for direct entry into the second year courses in the NUS. The Ngee Ann Polytechnic, set up in 1963 as Ngee Ann Technical College, also offers courses leading to Technician Diplomas. The Nanyang Technological Institute (NTI) was set up in 1981. It was accorded university status to conduct degree courses in engineering. The first year engineering students undergo a common course with the students of the NUS. All NTI graduates are awarded the Bachelor of Engineering degree by the NUS.<sup>56</sup>

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<sup>56</sup> *Ibid.*, pp. 38-39; *Education in Singapore*, pp. 56-57; Cowen and McLean, eds., *op. cit.*, p. 466, and Gwee Yee-Hean, "Republic of Singapore" in Asa S. Knowles ed., *The International Encyclopedia of Higher Education*, Vol. 8 (San Francisco: Jossey-Bass Publications, 1977), pp. 3834-3835.

### *Special Education*

Special education for blind, deaf, spastic, physically handicapped and mentally retarded children is provided by various voluntary organizations. They are assisted by the government and the Ministry of Education in the form of financial grants and provision of teachers. Special education is provided from primary to secondary levels. Blind and deaf students who have passed the PSLE are admitted to secondary schools. They attend classes with normal children and are assisted by specially trained teachers. In general, skills in language, basic arithmetic, self-help and social competence are taught. They are also given pre-vocational and vocational training according to the needs of each individual. In 1972, there were 13 schools providing special education of all kinds.<sup>57</sup>

### *Curriculum Development*

The curricula and syllabuses for all government and government-aided schools are prescribed by the Ministry of Education. Wherever possible, common syllabuses are followed in all the four language streams. In the 1960s, two successive committees were formed to review the contents of the textbooks adopted in the schools and to unify the syllabuses for the four language streams. In order to increase the effectiveness of curriculum development, in mid-1969, the Advisory Committee on Curriculum Development was established to advise the Minister of Education on all aspects of curriculum development and to supervise the implementation of such recommendations as might be approved by the Minister. The members of the committee included not only officials at the Ministry of Education but also teachers, principals, school inspectors and other specialists in the field of education.

In 1980, a new Curriculum Development Institute of Singapore (CDIS) was es-

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<sup>57</sup> *Singapore 1983*, pp. 189-190 and *Education in Singapore*, p. 66-67.

tablished to produce and develop teaching and learning materials. The Curriculum and Instruction Department of the CDIS is responsible for developing instructional packages (textbooks and audio-visual materials) and supplementary materials, implementing curriculum projects, and providing teachers with support and guidance in subject teaching. To facilitate the development of the New Education System, two new sets of schools curricula have been drawn up, one for primary and the other for secondary schools, and they have been implemented in stages between 1980 and 1981. The CDIS has already developed curriculum packages for Chinese language, English language, mathematics and science at primary level, science materials at lower secondary levels, and supplementary materials for English language and Chinese language at the secondary level.<sup>58</sup>

### *Teacher Training*

Formal teacher training was initiated in Singapore in 1864 with the introduction of the pupil-teacher system. Prior to 1973, teacher training was provided by the Department of Education of the Nanyang University, the School of Education of the University of Singapore, and the Teacher's Training College. However, the Nanyang University Department of Education and the Singapore University School of Education were closed in 1968 and 1971 respectively, leaving the task of teacher training solely borne by the Teacher's Training College (TTC), in order to achieve "optimum utilization of manpower and physical resources to prevent a duplication of effort".<sup>59</sup>

In 1973, the TTC was reorganized as a statutory body and renamed as the Institute of Education (IE). The IE offers a one-year Diploma in Education course for university graduates and a two-year Certificate in Education course for appli-

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<sup>58</sup> R. Wong, *op. cit.*, pp. 38-46 and *Singapore 1983*, p. 188.

<sup>59</sup> Gwee Yee-Hean, "Singapore" in Francis Wong, ed., *Teacher Education in ASEAN* (Kuala Lumpur: Heinemann Educational Books, 1976), pp. 130, 136, 146, 149 & 158.

cants who have passed GCE "A" level examinations. Holders of the Certificate in Education are qualified as primary school teachers. The IE also offers two types of in-service courses for teachers. One is ad hoc and is structured to meet identified needs related to policy changes. The other type leads to formal certificates such as the Further Professional Certificate in Education, which is for primary school teachers, and the Master's degree in Education.

The Department of Education for Children with Special Needs of the IE trains teachers to recognize, diagnose and remedy learning difficulties in the classroom, with the aim of helping slow as well as gifted children to achieve their maximum potential. A course in Computer Studies trains teachers for computer science teaching. The IE has absorbed the Research Unit of the Ministry of Education and promotes education research relevant to Singapore's needs.<sup>60</sup>

### *Non-Formal Education*

Non-formal education in Singapore is provided by various government and non-government institutions and organizations.<sup>61</sup> Various courses and activities are organized to prepare those who leave school prematurely for employment, to provide further vocational training, and to promote the development of "the whole man".<sup>62</sup> The Adult Education Board (AEB), established in 1960, offers fundamental education (teaching language and literature), secondary education (teaching the full range of secondary school subjects), vocational education, and general education (such as photography, Japanese flower arrangement, and so forth). The People's

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<sup>60</sup> Thomas, Goh and Mosbergen, *op. cit.*, pp. 214-215; *Singapore 1983.*, pp. 190-192; and Cowen and McLean, eds., *op. cit.*, p. 467.

<sup>61</sup> For the list of institutions and organizations offering non-formal education, see John Lowe, "Forms of Adult Education in Singapore", *Malaysian Journal of Education*, 3(2), Dec 1966, 142-149.

<sup>62</sup> *Ibid.* and Chai Chong-Yi, "Opening speech for the seminar on "Non-formal Education in Singapore" in R. S. Bhathal and Tian Nguk-In, eds., *Non-formal Education in Singapore* (Singapore: Singapore Science Centre, 1980), p. 5.

Association also carries out educational work in conjunction with the AEB, but it also runs some courses on its own initiative. The Association encourages mass participation in recreational, cultural and vocational activities. It gives great assistance in promoting the regular national campaigns, such as the family planning campaign, the campaigns against crime and pollution.<sup>63</sup>

In 1966, the Department of Extra-Mural Studies was established in the University of Singapore. The Department has organized for each calendar year two programmes of courses, each extending over a six-month period. Various subjects are taught, mainly conducted in English and Chinese. There has been great demand for courses related to job advancement or improvement in administrative or other skills. Most courses are offered to improve students' qualifications.<sup>64</sup>

In addition to courses provided by these organizations, there are other establishments, such as the National Library, National Museum, Botanic Gardens, Van Kleef Aquarium, Coralarium, Jurong Bird Park, Zoological Gardens, Maritime Museum and Singapore Science Centre, which contribute to non-formal education in various ways.<sup>65</sup>

### **3. Educational Administration**

The Education Act is the main statutory instrument for pre-school, primary, secondary and pre-university education. Other establishments are governed by other Acts. These laws provide the legal bases for the establishment of educational institutions, giving full power for the government and administration of the respective institutions as autonomous bodies.

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<sup>63</sup> Lowe, *op. cit* and Cowen and McLean, eds., *op. cit.*, p. 467.

<sup>64</sup> *Education in Singapore.*, pp. 64-65.

<sup>65</sup> See Bhathal and Tian, *op. cit.*

The Ministry of Education is responsible for all education matters. There are no regional authorities or local bodies. The Ministry is headed by the Minister for Education, who is assisted by a Minister of State and a Parliamentary Secretary. The Ministry is organized into six divisions, namely, the Personnel Division, the Education Services Division, the Planning and Management Services Division, the Schools Division, and the Research and Testing Division. Each division is headed by a Director.

All government, government-aided and private schools are under the supervision and control of the Ministry of Education. Government schools are under the direct control of the Ministry, while the government-aided schools are administered by school management boards. However, the Ministry exercises a certain degree of supervision and control over these schools, for example, by requiring the appointment of teachers to be approved by the Ministry. The Ministry exercises only very general control over private schools which have to comply with statutory requirements regarding administrative and professional standards. The staff of the government schools are government employees. While the staff of the government-aided are not government employees, their salaries are identical to those in the government schools.

While the Ministry of Education exercises supervision and control over education from pre-primary to pre-university levels, the Industrial Training Board is responsible for all matters relating to industrial training and the administration of industrial institutions. The industrial and business sectors are well-represented in the Board to ensure that the training provided is relevant to Singapore's rapidly expanding industrial needs. However, the training and utilization of scientific and technical manpower at professional level, the Science Council and the Marine Biological Centre are the responsibility of the Minister of Science and Technology.<sup>66</sup>

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<sup>66</sup> *Education in Singapore*, pp. 12-14, Cowen and McLean, eds., *op. cit.*, pp. 468-470; and *Singapore 1983*, p. 185.



#### **4. Supervision**

Supervision of schools is largely exercised by the Inspectorate which comes under the Schools Division of the Ministry of Education. The Inspectorate appraises school programmes and management and advises principals on school programmes and management. The Inspectorate of the primary sector is also responsible for the registration and inspection of private kindergartens and special schools, while the Inspectorate of the secondary sector deals with registration and inspection of private schools also.

Qualified teachers are supervised by a corp of inspectors whose duties include inspecting schools, enforcing school regulations, assessing candidates for teaching appointments, reporting on teachers and principals applying for promotion, and giving advice. In general, inspectors do not perform administrative functions unless they are assigned temporarily to posts outside the Inspectorate. Those promoted to the Inspectorate are suitably qualified principals and teachers with at least five years of teaching experience.<sup>67</sup>

#### **5. Educational Finance**

Public education in Singapore is almost entirely financed from government revenue derived from taxes, sales of goods and services, and income from investment and property. Voluntary contributions from private sources and foreign aid are relatively insignificant. Government-aided schools are also primarily dependent on government support. They receive grants of up to 50 per cent for development costs and a per capita grant for recurrent costs based on enrolment. Moreover, the salaries and allowances of staff in the government-aided school, at rates identical to those of government school staff, are borne by the Ministry of Education. Private

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<sup>67</sup> Singapore. Ministry of Education, "Singapore", *op. cit.*, p. 1036.

schools run on a commercial basis do not receive financial aid from the government. The National University of Singapore and other tertiary institutions almost entirely depend on the Ministry's grants. They receive block grants annually, and they are free to spend the money how they choose.

Every year, the Ministry of Education makes its own estimate of expenditure, and presents these estimates with full explanation to the Ministry of Finance. Items supported by the Ministry of Finance are put into the Republic's draft budget estimates, which are then presented to the Parliament for approval. Education was the biggest item in the national budget but it now comes next to defense. The amount of expenditure on education has been rising since 1960 but its proportion of the total government expenditure has been declining. In 1964, the proportion was 24.3 per cent, it fell to 11.7 per cent in 1970 and to 7.5 per cent in 1978. The proportions of the educational budget spent on primary, secondary and tertiary education were 64 per cent, 20 per cent and 16 per cent in 1962, and 39 per cent, 37 per cent and 15 per cent in 1978 respectively. Hence, the proportion of expenditure on secondary education has increased but that on primary education has decreased. In recent years, vocational and technical education has obtained an increasing share of the education budget.<sup>68</sup>

## **C. The Educational Environment of Hong Kong**

### **1. The Objectives of Education**

Stated educational objectives have changed radically over the past century and a half. At different times in the nineteenth century, the expressed educational objectives included those of training priests and interpreters, keeping problem children

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<sup>68</sup> Singapore. Ministry of Education, "Singapore", *op. cit.*, pp. 1035-1036 and Cowen and McLean, eds., *op. cit.*, p. 470.

off the streets, protecting girls from being kidnapped, and serving China. In the early twentieth century, the objectives included providing leaders for the future and offering an alternative to sweated labour in factories.<sup>69</sup>

In 1971, the Education Department's paper for UNESCO's "World Survey of Education" stated that education in Hong Kong should fulfill the functions of culture transmission and skill-training to ensure economic viability.<sup>70</sup> This two-fold objective was more clearly expressed in the 1973 Green Paper, *Report of the Board of Education on the Proposed Expansion of Secondary School Education in Hong Kong over the Next Decade*:

In our view public education has these traditional areas of responsibility: to the individual, to his society and to the cultural heritage of mankind. As we see it, education should strive to develop individuals who are curious, imaginative and creative, who will have an appreciation of their cultural heritage, and an awareness of the moral, social aesthetic values of our present day society and of the role they can play in its improvement. Inherent therefore in our overall aim of education is the efficient development of intellectual, vocational and inter-personal skills relevant to the individual as he takes his place in Hong Kong.<sup>71</sup>

Starting with the traditional responsibility of education, the Board of Education concluded that there should be a three-fold educational objective, namely the development of intellectual, vocational and inter-personal skills. This three-fold objective appeared also in the 1978 White Paper, *The Development of Senior Secondary and Tertiary Education*. However the White Paper elaborated the intellectual and vocational aspects to include the acquisition of knowledge and skill in reading and writing, mathematics, science and technology as a preparation for living and working in the rapidly changing and highly technically orientated soci-

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<sup>69</sup> Anthony Sweeting, "Hong Kong" in Thomas and Postlethwaite, eds., *op. cit.*, p. 279.

<sup>70</sup> Hong Kong. Education Department, "Hong Kong" in *World Survey of Education* (Paris: Unesco, 1971), p. 1218.

<sup>71</sup> *Green Paper: Report of the Board of Education on the Proposed Expansion of Secondary School Education in Hong Kong over the Next Decade* (Hong Kong: Government Printer, 1973), p. 1.

ety.<sup>72</sup> This was actually an echo of the expressed objectives in the earlier published 1977 Green Paper, *Senior Secondary and Tertiary Education*, which stated that the educational objectives should include producing personnel to fit the Colony's manpower plan.<sup>73</sup> Considering the subsequent establishment of the Education and Manpower Branch in the Executive of the Government, it can be concluded that the government has increasingly geared education towards the economic and industrial development of Hong Kong. This trend was denoted by the *Llewellyn Report*: "Education in Hong Kong is predominantly a highly utilitarian means to economic and vocational ends."<sup>74</sup> The 1984 Education Commission also made a similar observation:

From the outset, we have been keenly aware of the fact that human resources have been, and will remain, a principal asset of Hong Kong, and education is the key to their development ... (W)e feel that within the resources available, the needs of the community, must first be considered, though in a free society, the wishes of the individual should, within this constraint, be accommodated as far as possible.<sup>75</sup>

## 2. Structure of the Educational System

Hong Kong's educational system is far more complicated than those of Japan and Singapore. It consists mainly of a multi-track pattern, although a 6-3-2 pattern can be traced from the primary to the senior secondary levels of education. The government provides free and compulsory education for all the first 9 years of education, that is, 6 years of primary education and 3 years of junior secondary education. Beyond the junior level, about 60 per cent of the students may be given subsidized school places in the public sector for senior secondary education. However, students

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<sup>72</sup> *White Paper: The Development of Senior Secondary and Tertiary Education* (Hong Kong: Government Printer, 1978), p. 18.

<sup>73</sup> *Green Paper: Senior Secondary and Tertiary Education: A Development Programme for Hong Kong over the Next Decade* (Hong Kong: Government Secretariat, 1977), pp. 1-9.

<sup>74</sup> See Llewellyn et al., *A Perspective on Education in Hong Kong (Llewellyn Report)* (Hong Kong: Government Printer, 1982), p. 12.

<sup>75</sup> *Education Commission Report No. 1*, pp. 4-5.

may also enter technical institutes for technical education. The educational scene is more complicated beyond the senior secondary level. The entrance requirements of the two universities in Hong Kong are different, thus resulting in different forms of sixth-form education. Moreover, there are special sixth-form classes provided for those who are preparing to sit the United Kingdom GCE examinations. Instead of seeking admission to the universities, students may enter post-secondary colleges, colleges of education for teacher training, or polytechnics and technical institutes for technical education. All these colleges admit students of both senior secondary and sixth-form levels.

Schools in Hong Kong can be classified into different categories from different perspectives. In respect of the source of finance and school management, there are three types of schools: government, aided and private schools. Government schools are completely financed and operated by the government. Aided schools are run by voluntary bodies to which the government pays the difference between the schools' expenditure on salaries (and approved instructional costs) and the schools' income from fees. Private schools are financed and run by private bodies and individuals.<sup>76</sup> In contrast to Singapore where schools of the public sector predominate, Hong Kong's educational provision has been dominated by the private sector, especially at the secondary level. In respect of the medium of instruction and school traditions, schools can be classified into another three types: Anglo-Chinese schools, Chinese Middle schools and English schools. Anglo-Chinese schools are modelled on the British pattern, using English as the medium of instruction. Chinese Middle schools are rooted in old China and the traditions of the past, using Chinese as the medium of instruction. The very few English schools are those operated by the English Schools Foundations for English-speaking children who normally proceed

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<sup>76</sup> Aided schools are further divided into grant-in-aid schools (well established secondary schools to which the grant code applies), subsidized schools (mainly primary schools sponsored by welfare societies to which the subsidy code applies and to which the government gives a subsidy towards the schools costs), and assisted private schools (non-profit-making private schools which receive a limited form of government assistance). See Norman K. Henderson, *Educational Developments and Research: With Special Reference to Hong Kong* (Hong Kong: Hong Kong University Press, 1963), p. 2.

to higher education overseas. Schools may be further classified into three types from the curriculum perspective. They are grammar schools, technical schools and prevocational schools.<sup>77</sup> In Hong Kong, most primary schools and some private secondary schools operate in two sessions - from 8 a.m. to 1 p.m. and from 1.30 p.m. to 6.30 p.m.<sup>78</sup>

### *Pre-Primary Education*

As in Japan and Singapore, pre-school education in Hong Kong is not a part of compulsory education and is mainly provided by kindergartens, but there are also some child care centres providing some pre-primary education. Whilst they are public institutions in Japan, all kindergartens in Hong Kong are run by voluntary and private bodies. They are registered with the Education Department and supervised by the Department. The government gives assistance in the form of grants of Crown land to reliable bodies, rebate of rates and rent to non-profit-making kindergartens, the allocation of kindergarten premises in public housing estates, fee assistance to needy parents, and the provision of in-service teacher training facilities. The 1980 *Green Paper on Primary Education and Pre-Primary Services* defined kindergarten education as being one-to-two year course of education for children between three years eight months and six years of age. Under the amended Education Ordinance, which came into effect in September 1985, three years eight months became the normal age of entry to kindergartens. As a result of this Ordinance, children below the kindergarten-going age attend child care centres or any institution registered under the Child Care Centres. As suggested by the 1980 *Green Paper on Primary Education and Pre-Primary Services*, the aims of pre-primary education is five-fold. As in Japan, there has been great demand for kindergarten education. In 1984, a total of 209,869 children - 88 per cent of the 3-5 age group - were enrolled in 24

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<sup>77</sup> *Ibid.*

<sup>78</sup> *Hong Kong: The Facts - Education* (Hong Kong: Government Information Services, 1984), p. 1 and Sweeting, *op. cit.*, p. 282.

kindergartens.<sup>79</sup>

### *Primary Education*

Primary education lasts 6 years from the age of six. Since 1971, primary education has been free in all schools in the public sector. Attendance is compulsory, although the law is rarely enforced. The aim of primary education is to provide general education appropriate to the age range and the particular environment of the children, and to promote children's all-round development and to help them acquire the basic skills they will need to live and work in a contemporary society.<sup>80</sup> The medium of instruction is Chinese while English is taught as the second language, with the exception of 50 schools out of 882 in 1980. The core curriculum in primary schools consists of nine subjects, including Chinese language, English language, mathematics, health education, primary science, social studies, music, physical education, and art and craft. The total number of teaching periods is 38 per week in bisessional schools and 40 per week in whole-day schools. Teaching periods vary in duration from 30 minutes to 40 minutes each, but most schools have adopted a 35-minute period. Table 3.3.1 shows the period allocation for each subject in the different years of primary education.<sup>81</sup>

A Primary Admission System was introduced in September 1983, according to which the Education Department monitors admission to the first year of school in government and aided primary schools.<sup>82</sup> Prior to 1978, all primary school leavers had to sit the Secondary School Entrance Examination to compete for admission to secondary school places in the public sector. With the introduction of nine

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<sup>79</sup> *Hong Kong: The Facts - Education*, p. 1; *Hong Kong 1983: A Review of 1982*, p. 67; and *Green Paper on Primary Education and Pre-Primary Services* (Hong Kong: Government Secretariat, 1980).

<sup>80</sup> *Report of the Board of Education on the Proposed Expansion of Secondary School Education and The Hong Kong Education System*, p. 198.

<sup>81</sup> *Hong Kong: The Facts - Education*, p. 1 and *The Hong Kong Education System*, p. 253.

<sup>82</sup> *Hong Kong: The Facts - Education*, p. 1.

years of free and compulsory education, the examination has been replaced by a system of allocation, namely, the Secondary School Places Allocation (SSPA). The system is based on internal school assessments scaled by a centrally-administered Academic Aptitude Test, parent's choices of secondary schools, and the secondary schools available for each territorial division. In 1985, 87,095 primary 6 pupils were allocated Form 1 places in government schools, aided schools, private non-profit-making schools in receipt of percapita grants and private independent schools in the "bought place" scheme.<sup>83</sup>

### *Secondary Education*

There are four main types of secondary schools: Anglo-Chinese schools, Chinese Middle schools, secondary technical schools, and prevocational schools. With the exception of Chinese Middle schools (which teach in Chinese with English taught as a secondary language), the medium of instruction in these schools is mainly English. Anglo-Chinese grammar schools are favoured by the majority of the population. In 1982, there were 383,900 pupils enrolled in 346 day schools of this type, in contrast to an enrolment of 4,742 in 72 Chinese Middle schools, 19,554 in 21 secondary technical schools and 10,680 in 12 prevocational schools.<sup>84</sup>

The purpose and content of secondary education in Hong Kong are derived from the idea of liberal education as it has been understood and developed in Britain. At the same time, the provision of technical and prevocational education reflects the specific needs of the society.<sup>85</sup>

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<sup>83</sup> *Hong Kong 1977: Report of the Year 1976*, p. 56 and *Hong Kong 1986: A Review of 1985*, p. 88.

<sup>84</sup> *Hong Kong 1983: A Review of 1982*, pp. 69-70.

<sup>85</sup> 1973 Green Paper on Secondary Education, p. 39.



*Junior Secondary Education*

Junior secondary education lasts three years (Form 1 to Form 3) beyond the primary level. It became compulsory in September 1979 and has been free since September 1978. As envisaged in the 1974 White Paper, the Education Department emphasizes a balanced curriculum comprising general, practical and cultural subjects, but allowing some flexibility for individual schools. The curriculum includes languages (normally Chinese and English), mathematics, science, social subjects (such as history, geography, economic and public affairs and health education or an integrated social studies course), Chinese history, practical subjects (usually art and design plus either home economics or design and technology), physical education, music, and ethical or religious education. As shown in Table 3.3.3, the largest number of teaching hours is devoted to language teaching. In prevocational schools, the time allocation is adjusted to give greater prominence to practical and technical subjects. The curriculum consists of 50-60 per cent of general subjects and 40-50 per cent of technical subjects. Subjects taught in these schools cover many of the manufacturing and technical trades represented in Hong Kong's industry and commerce. The notional teaching periods per week in secondary schools are 42, but the majority operate a 40-period week (26 hours 40 minutes, exclusive of breaks). They reduce the suggested time allocation by two periods, according to individual circumstances.<sup>86</sup>

In Form 3, all those who wish to continue their education in schools of the public sector have to take part in the Junior Secondary Education Assessment (JSEA) system, which is a centralized system of selection and allocation of pupils to subsidized senior secondary school places. In 1985, 74 per cent of those presented for assessment were allocated either aided Form 4 places or one-year full-time craft course places; and 85 per cent of them were allocated back to their own schools.<sup>87</sup>

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<sup>86</sup> *The Hong Kong Education System*, pp. 254-255 and Brimer, *op. cit.*, p. 2305.

<sup>87</sup> Hong Kong. Education Department, *Education in Hong Kong: A Brief Account of the Educational System with Statistical Summary* (Hong Kong: Information and Public relation Section,

*Senior Secondary Education*

Since the extension of the prevocational schools to the post-Form 3 level in 1982, all the four main types of secondary school now offer two years of senior secondary education (Forms 4 to 5), leading to the Hong Kong Certificate of Education Examination (HKCEE). The senior secondary curriculum varies from school to school, according to individual circumstances, but most schools offer Chinese language, Chinese literature, English language, mathematics, biology, chemistry, physics, geography, Chinese history, history (studies in English), economic and public affairs, economics, music, physical education, ethical and religious education. Many schools offer subjects such as art and design, design and technology, commercial subjects, and home-economics; and some schools offer English literature for those with a good standard in English. The time allocation for each subject prescribed by the Education Department is shown in Table 3.3.4. In practice, most students are streamed into classes emphasizing either arts or science subjects in preparation for the HKCEE. In prevocational schools, the technical content is reduced to about 30 per cent at this level.

Because of the existence of Anglo-Chinese and Chinese Middle schools which are different in the medium of instruction, most HKCEE examination papers may be answered in either English or Chinese. Some papers, such as Chinese language, Chinese literature, Chinese history and Buddhist studies, can only be answered in Chinese. Papers answered in both languages are regarded as of equivalent standards, with the exception of the English paper. A credit (grade C) in the English paper for the Chinese Middle school students is only considered equivalent to a pass (grade E) in the paper for the Anglo-Chinese students.<sup>88</sup>

Students with satisfactory HKCEE results may be admitted to sixth-form

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1982), p. 2 and *Hong Kong 1986: A Review of 1985*, p. 81.

<sup>88</sup> Robert Barendsen, "Hong Kong" in Lee C. Deighton, ed., *The Encyclopedia of Education*, Vol. 4 (U.S.A: Macmillan & Free Press, 1971), p. 485; Brimer, *op. cit.*; and *The Hong Kong Education System*, pp. 255-6.

courses. The Anglo-Chinese schools mainly offer 2-year courses, leading to the Hong Kong Advanced Level Examination for admission to the University of Hong Kong. In practice, many students also sit the United Kingdom GCE examinations at both "O" and "A" levels during these two years. There are also one-year sixth-form courses, offered by some Anglo-Chinese and most Chinese Middle schools, leading to the Hong Kong Higher Level Examination for admission to the Chinese University of Hong Kong. In addition, a few private institutes offer special sixth-form courses for the GCE examinations.<sup>89</sup>

### *Higher Education*

Hong Kong's higher educational scene is more complicated than those of Japan and Singapore. Apart from the two universities, the two polytechnics and the Hong Kong Baptist College which are all classified as higher education institutes, there are also technical institutes offering tertiary education and other colleges offering post-secondary education.<sup>90</sup>

The University of Hong Kong is operated on the British model, with English being the medium of instruction, except in the Department of Chinese. It has nine faculties - arts, architecture, dentistry, education, engineering, law, medicine, science and social sciences. In 1985, the enrolment was about 7,000. All faculties, except the Faculty of Education, which offers postgraduate courses only, teach both undergraduate and postgraduate courses. Most programmes last three-years leading to bachelor's degrees. The programmes leading to the bachelor's degrees in architecture, medicine and surgery require five years of study. There are also taught course programmes leading to postgraduate certificates, diplomas and master's degrees as well as research programmes leading to master's and doctoral degrees.

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<sup>89</sup> *Hong Kong 1986: A Review of 1985*, p. 89.

<sup>90</sup> See S. Bailey and K. W. J. Topley, "Colony of Hong Kong" in A. S. Knowles, ed., *The International Encyclopedia of Higher Education*, Vol. 5 (San Francisco: Jossey-Bass Publishers, 1978), p. 2054; Barendsen, *op. cit.*, pp. 85-86; and *Hong Kong 1985*, pp. 125-130.

The Chinese University of Hong Kong is a federal university composed of three constituent colleges - New Asia College, Chung Chi College and United College. In 1985, the enrolment totalled 7,009. Four of the faculties - arts, business administration, science and social sciences - offer four-year programmes leading to bachelor's degrees. The Faculty of Medicine, which was established in 1981, runs a five-year programme leading to the Bachelor of Medicine. Until recently, students had to pass a two-part degree examination before a degree was conferred. The university emphasizes bilingualism; most courses are taught in Chinese, but English is also used widely. At postgraduate level, the university also offers programmes leading to master's and doctoral degrees. In addition, there are part-time courses leading to bachelor's degrees and master's degrees in a number of subjects as well as professional diplomas in both education and social work.<sup>91</sup>

The Hong Kong Baptist College was established in 1956 as a post-secondary college. In 1983, it became a publicly funded institution of higher education. The college is an autonomous institution governed by the Hong Kong Baptist Ordinance, which came into effect on January 1984. Its statutory governing bodies - the Board of Governors and Council - include members independently appointed by the Governor from the sectors of commerce, industry and education. The college has four faculties - arts, business, science and engineering, and social sciences, offering three-year full-time post-advanced level courses covering 17 disciplines, leading to honours diplomas. The college began to offer two degree courses - the Bachelor of Science (Hons) in Combined Science and Bachelor of Social Work - in September 1986. In 1985, the full-time enrolment in the college totalled 2,197.<sup>92</sup>

Technical and industrial training at tertiary level is offered by the polytechnics

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<sup>91</sup> Bailey and Topley, *op. cit.*, p. 2056; *Hong Kong 1986: A Review of 1985*, pp. 92-94. For the cancellation of degree examinations in the Chinese University, see Zeng Zhongrong, "The Chinese University of Hong Kong's Self-Defense" (in Chinese), *Pai Shing Semi-Monthly*, (114), Feb 1986, p. 11.

<sup>92</sup> *Hong Kong 1985: A Review of 1984*, pp. 128-31 and *Hong Kong 1986: A Review of 1985*, pp. 95-9.

and technical institutes. The Hong Kong Polytechnic has a total of 22 academic units which are organized into divisions and institutes. To meet the demands for commerce, industry and the community, a wide range of courses is operated in various modes of attendance, namely, full-time, part-time day release, part-time evening, sandwich, and mixed mode. The programmes normally require one to four years of study, leading to a wide range qualifications such as associateship, professional diplomas, higher diplomas, diplomas, post-registration certificates/diplomas, endorsement certificates, higher certificates, certificates, and certificates of proficiency. The polytechnic began to offer degree courses in 1984, and during 1985-1986, there were ten degree courses. There has been great demand for admission to the polytechnic; and in 1985, the polytechnic had a student population of 7,540 in full-time studies and 18,214 in part-time studies. Another polytechnic, the Hong Kong City Polytechnic is a new establishment set up in 1985, offering course for almost 500 full-time and over 700 part-time students.<sup>93</sup>

In Hong Kong there are five technical institutes - Morrison Hill, Kwai Chung, Kwun Tong, Haking Wong and Lee Wai Lee - which provide various full-time, block-release, part-time day release and part-time evening courses. The institutes operates at two distinct levels, namely, craft (post-Form 3) and technician (post-Form 5). Full-time craft courses usually require one-year's study. Full-time technician programmes last two years, leading to diplomas. Most technician level courses have been validated by the United Kingdom Business and Technician Education Council (BTEC) and students attending these courses can register for the Council's awards. In 1985, there were 6,000 full-time and 39,600 part-time students enrolled in these institutes.<sup>94</sup>

Some institutions are designated as post-secondary and their courses are regarded as below higher education level. There are two approved post-secondary

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<sup>93</sup> *Hong Kong 1985: A Review of 1984*, pp. 128-131 and *Hong Kong 1986: A Review of 1985*, pp. 95-99.

<sup>94</sup> Bailey and Topley, *op. cit.*, p. 2054; *The Hong Kong Education System*, pp. 33-34; *Hong Kong 1986: A Review of 1985*, pp. 100-101; and "Education at the Crossroads", *op. cit.*, p. 16.

colleges - the Hong Kong Shue Yan College and Lingnan College - registered under the Post-Secondary College Ordinance. The Hong Kong Shue Yan College has three faculties - arts, social science and business, with an enrolment of 3,490 in 1985. The college offers four-year courses leading to diplomas with no financial assistance from the government. Lingnan College also has three faculties - arts, science and business, with an enrolment of 1,299 in 1985. The college offers 2-year Form 6 courses, a 2-year post-Form 6 higher diploma programme and a fifth year end-on course for the higher diploma holders leading to honours diplomas. Different from the former college, Lingnan College is financially assisted by the government and its students can apply for government grants and loans. In addition to the two colleges, there are a number of private day and evening institutions registered under the Education Ordinance which offer post-secondary courses of varying standards. They do not receive financial assistance from the government.<sup>95</sup>

Competition for admission into higher education institutions is intense. In 1985, over 20,000 candidates sat the various public examinations, only 1,261 were admitted into the Chinese University of Hong Kong, and the University of Hong Kong admitted a similar number of candidates. The ratio of applicants to full-time places was 8:1 for the Hong Kong Baptist College and 11:1 for the technical institutes in 1984. In 1982, only 2 per cent of the 17-20 age group in Hong Kong was provided with first-year degree places, compared to about 5 per cent in Singapore. Hence, the establishment of a third university in Hong Kong has been considered necessary, and a planning committee was appointed in 1986.<sup>96</sup> It is now being established and is expected to have its first intake in 1991.<sup>97</sup>

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<sup>95</sup> Lingnan College is financially assisted by the government on the basis that it accords with the government's demand for operating a 2-2-1 system, offering post-Form 6 courses, higher diploma courses and honours diploma courses respectively. See *The Hong Kong Education System*, p. 90.

<sup>96</sup> *Hong Kong 1986: A Review of 1985*, pp. 94-100; *Hong Kong 1983: A Review of 1982*, p. 137; *Hong Kong 1988: A Review of 1987*, pp. 117-118; "Education at the Crossroads", *op. cit.*, p. 12; and Margaret Scott, "Support for Hong Kong's Third University Wavers", *Far Eastern Economic Review*, 131(3), 16 Jan 1986, 78.

<sup>97</sup> See *Hong Kong News Digest* (in Chinese), 24 Apr 1986, 10.

### *Special Education*

In Hong Kong, there are 17 special schools providing over 8,000 places for the severely handicapped, including the blind, the deaf, the physically handicapped, the mentally handicapped, the maladjusted and the socially deprived. In order to enable handicapped children to be educated in the same way as ordinary children wherever possible, special schools follow the ordinary curriculum, using special methods and teaching techniques.

Voluntary organizations offering special education are financially assisted by the government. The Special Education Section of the Education Department runs special classes in ordinary schools for slow learning, partially sighted and partially hearing children. In 1985, there were 334 such special classes offered to over 9,000 children. The section also operates Special Education Services Centres which provide diagnostic and remedial services including audiology, speech therapy and counselling. In addition, the Section runs training courses for teachers of handicapped children and supervises a braille printing press. Screening and assessment services are provided to identify special educational needs among school children so that remedial action can be taken as early as possible. All primary 2 pupils are screened under the Combined Screening Programme which comprises speech, hearing and vision screening and group testing.<sup>98</sup>

### *Curriculum Development*

To facilitate the development of the school curriculum, in 1970, the Curriculum Development Committee (CDC) was set up in the Advisory Inspectorate Division of the Education Department. The CDC is a non-statutory advisory committee appointed to advise the Director of Education on the school curriculum and closely

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<sup>98</sup> *Hong Kong: The Facts - Education*, p. 2; 1973 Green Paper on Secondary Education, p. 38; and *Hong Kong 1986: A Review of 1985*, pp. 124-125.

related matters. The activities of the CDC have become a focal point of the Division. The CDC and its many subject committees are responsible for curriculum renewal at pre-school, primary and secondary levels. They give advice on the general approach and direction of school curriculum and develop detailed syllabuses and curriculum guides for each school subject or subject-group. Moreover they organize courses, seminars, workshops and exhibitions to inform teachers of new curricular trends and teaching strategies. Newsletters, bulletins and pamphlets on curriculum matters are also published and distributed free to schools.

The CDC Textbooks Committee is responsible for the evaluation of school textbooks. Textbooks are submitted to the Committee for review by publishers or may be obtained by the Committee as a result of their being included in textbook lists submitted for Departmental approval. The titles of those books being considered suitable as school textbooks are placed on the Recommended List, which is regularly updated and issued to all schools. The Committee also recommends the banning of those books considered educationally unsuitable.

There is no compulsion on a school to follow the suggested syllabuses, provided the proposed alternative syllabuses are acceptable to the Director. However in practice, as the more reputable textbook publishers follow the suggested syllabuses, most schools follow the suggested syllabuses also. There is no compulsion about the adoption of particular textbooks either. Textbooks not in the Recommended List can also be used, provided that these books are not on the banned list.<sup>99</sup>

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<sup>99</sup> *The Hong Kong Education System*, pp. 116-117 and *Hong Kong Education Department Annual Summary 1984-5*, p. 4. So far reviewers of textbooks are not paid for their services and the reviewing process is thus slow. Moreover, the Education Department concedes that there still exist too many textbooks which are of mediocre standards (*The Hong Kong Education System*, p. 116). In respect of the inadequate resources on textbook review and the existence of a profusion of syllabuses, M. A. Brimer regards curriculum development as "undoubtedly the weakest area in Hong Kong education". See Brimer, *op. cit.*, p. 2308. On the other hand, the school curriculum is to a great extent affected by the syllabuses set up by the Hong Kong Examination Authority (HKEA), which is an independent examination body. However, recently, the CDC has sought closer liaison with the HKEA in the development of school syllabuses. See *The Hong Kong Education System*, p. 115.



*Teacher Training*

While teacher education is available only in universities in Japan and only in the Institute of Education in Singapore, both types of institutions offer teacher training in Hong Kong. In Hong Kong, there are three Colleges of Education - Grantham, Northcote and Sir Robert Black. They offer a two-year full-time programme for students with the Hong Kong Advanced Level Examination qualifications and a three-year full-time programme for students with the HKCEE qualifications. The three Colleges also operate in-service training courses, including a one-year Advanced Course of Teacher Education and part-time courses for serving teachers of kindergartens, primary and secondary schools, and for teachers engaged in special education. In 1985, the full-time enrolment in the three Colleges totalled 1,003 in the two-year programme, 1,358 in the three-year programme and 77 in the Advanced Course of Teacher Education. In addition, there were 2,103 candidates attending other in-service training and retraining courses. Graduates of the Colleges of Education may teach in both primary and secondary schools, but those working in secondary schools usually teach junior secondary classes.

Technical teacher training is offered by the Hong Kong Technical Teacher's College. The College trains technical teachers for secondary schools and prevocational schools. The College offers a one-year full-time course for mature students who are well qualified and experienced in a technical field and have decided to take up technical teaching as a career. There is also a three-year full-time programme for secondary school leavers who have prior studies in technical or commercial subjects. The college also provides in-service training courses for teachers, including the Advanced Course of Technical Education in Design and Technology and Commerce, and courses for supervisors and instructors employed in industry. In 1985, the total enrolment in the College was 176 in the full-time courses and 150 in the part-time and short courses.<sup>100</sup>

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<sup>100</sup> *Hong Kong 1985: A Review of 1984*, p. 103 and *The Hong Kong Education System*, p. 105.

Teacher training courses for graduate teachers are offered by the two universities. The Chinese University of Hong Kong School of Education offers a one-year full-time course, a two-year part-time day course and a two-year part-time evening course, leading to the Diploma in Education. The University of Hong Kong School of Education offers a one-year full-time course and a two-year part-time course, leading to the Certificate in Education. The Schools of Education in both universities also offer programmes leading to the master's degrees. The Chinese University of Hong Kong runs M.A. (Ed.) courses for Diploma in Education holders. The courses take one to three years to complete. In the University of Hong Kong, a 36-week part-time course is offered to Certificate in Education holders, leading to the Advanced Diploma in Education, and a further 36-week courses offered to Advanced Diploma holders, leading to the degree of Master of Education.

University graduates without a teacher training qualification may teach in aided and private schools as permitted teachers. After acquiring three years of approved teaching experience, they may be qualified as registered teachers. There is a considerable number of non-graduate permitted teachers in the teaching force, and most of them teach in private schools. In 1980, 78.8 per cent of the teachers in private primary schools and 82.7 per cent of the teachers in private secondary schools belonged to this group. However, the proportion of untrained non-graduate teachers in the non-profit-making private schools was lower (30.9 per cent) and even lower in the government and aided schools (1.9 per cent). The government encourages untrained graduate teachers to receive teacher training by awarding two points in the salary scales to those with professional qualifications and allowing them to be eligible for promotion beyond their initial rank. On the other hand, teachers without professional qualification are not allowed to proceed to the last six-points of their salary scales. Of course, this policy only applies to teachers of the public sector.<sup>101</sup>

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<sup>101</sup> *The Hong Kong Education System*, pp. 27 & 107.

*Non-Formal Education*

Prior to World War II, various types of study groups, cultural and sport activities and opportunities for some vocational training had already been provided, such as in the West Point Reformatory. During the postwar period, libraries, museums, recreational areas, study centres, and evening classes have been established, originally initiated by voluntary organizations and individuals and supported by the government. Since the early 1950s, the government has taken a more active role in the provision of non-formal education.

The Adult Education Section of the Education Department provides a wide range of courses and recreational activities through the Evening School of Higher Chinese Studies, 17 Adult and Education Recreation Centres, the Evening Institute and 47 subsidized agencies. The Evening School of Higher Chinese Studies runs courses which may be completed in three to five years leading to diplomas. The 113 centres of the Evening Institute offer courses from basic literacy to secondary and post-secondary levels. The Adult and Recreation Centres organize many cultural, social and recreational activities.

In addition to the non-formal educational activities run by the Adult Education Section, various activities are run by other organizations and agencies. They include vocational courses (offered by the Boys' and Girls' Association, Hong Kong Council for Social Services, Caritas, extra-mural departments of the two universities, technical institutes, the Hong Kong and Shanghai Banking Corporation, etc.), counselling services (offered by government and voluntary agencies), scouting, the School Music Festival, family planning services, a wide range of organized sports, and such interest groups as the Hong Kong University Students' Legal Education Project Committee and the Hong Kong Council for Women's War Against Rape.<sup>102</sup>

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<sup>102</sup> Sweeting, *op. cit.*, pp. 285-286 and *Hong Kong 1986: A Review of 1985*, p. 104.

### **3. Educational Administration**

The Education Ordinance, introduced in 1913, renewed in 1952 and 1958, forms the statutory basis of the educational system in Hong Kong. The Ordinance gives legal power of the Director of Education over educational administration and places all private schools under the supervision of the government which accepted responsibility for the control of primary and secondary education. However the Ordinance does not apply to the universities and polytechnics which are self-governing corporations.

Prior to 1981, the Education Department was administered within the social services branch of the government which also covered social welfare and liaised with the University and Polytechnic Grants Committee (UPGC). In 1981, an education branch was set up with the purpose of allowing policy making and the formulating and monitoring of education programmes to be separated from the day-to-day administration of education. The secretary for education is the chief executive of the branch. The Director of Education is the chief executive of the Education Department and supervises the administration of education over the entire territory. He is responsible for proposing new policies and implementing approved policies. He has direct responsibility for all schools and is required by the Education Ordinance to keep a register of schools, of managers of schools and of teachers. He is assisted by a Deputy Director, and the Department is divided at this level into two branches, one responsible for schools and services and the other for planning and development, each headed by a Senior Assistant Director. The Planning and Development Branch consists of the Inspectorate Division, the Further Education Division, the Planning and Building Division and the Technical Education Division, together with the Board of Education Secretariat. The Schools and Services Branch consists of the Schools Division and the Services Division. Each Division is headed by an Assistant Director. In addition, there are two divisions - the Accounts and Supplies Division and the Headquarter and Administrative Division, which are

responsible directly to the Deputy Director.

All government schools, colleges and institutes are managed by their head teachers or principals. Other schools are managed by their sponsoring bodies. These bodies form school management committees which operate their respective schools and control expenditure of funds received from the government. However the day-to-day school management is the responsibility of the principals. In order to represent their joint interests, many sponsoring bodies join together in councils where the principal normally represents the school. All the aided schools are required to be managed and conducted in accordance with the Education Ordinance and the respective code of aid. The codes of aid specify such matters as staffing standards and entitlements, salary scales, allowances and conditions of service and include an administrative guide in addition to detailed procedures for financial control.

The Governor of Hong Kong is advised by a statutory body, the Board of Education, which is appointed by him. At present, members of the Board include 19 unofficial members and 2 official members (the Director of Education and the Deputy Secretary for Social Services). For the most part, the Board advises on matters referred to it but has on occasions initiated themes of discussion, one of which has led to the overall review of education undertaken in 1981-1982 by an independent panel appointed after consultation with the OECD. The Board's membership reflects a variety of interest, both specialists and general but it reflects public opinion only to a limited extent.<sup>103</sup>

#### **4. Supervision**

With the aim of improving the quality of teaching and maintaining standards in schools, the Advisory Inspectorate carries out inspections of schools; gives advice

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<sup>103</sup> *The Hong Kong Education System*, pp. 46-52 & 63; Brimer, *op. cit.*, p. 2307 and Hong Kong Education Department, "Hong Kong", *op. cit.*, pp. 1219-1220.

on teaching methodology, resource materials and general subject organization; organizes in-service training for teachers; carries out research programmes; provides audio-visual advisory and library services; publishes bulletins for teachers; and provides the staff for curriculum developments. School supervision is carried out by a corp of inspectors, headed by the Chief Inspector of Schools who is the chairman of the CDC. Inspections are usually carried out on a subject basis. Schools to be inspected are selected at the discretion of senior staff, and the number of inspectors varies depending on the size of the schools. During the visit, the inspectors observe a cross-section of lessons, examine syllabuses, textbooks and other resource materials, and hold discussions with the panel chairman and his staff on such matters as subject organization, time allocation, deployment and management of staff, allocation of resources, subject co-ordination, and so forth. In addition to regular visits, teacher inspections are carried out in connection with promotions and over probation and confirmation bars. Subject inspectors are also involved in the organization and conduct of a wide range of short refresher courses for teachers on classroom practice and curricular innovations. During 1984-1985, 4,421 full inspections were conducted and 660 in-service training classes were organized for teachers.<sup>104</sup>

## **5. Educational Finance**

In Hong Kong, the ultimate financial authority rests with the Legislative Council of which the Director of Education is an official member. Each year, all government departments submit detailed estimates of expenditure for the next year to be examined by the Finance Branch of the Government Secretariat. They are then submitted to the Legislative Council for approval; and annual expenditure on public education is one of the items to be approved. The Director of Education has no discretion to undertake expenditure on projects which have not been approved.

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<sup>104</sup> *Hong Kong. Education Department Annual Summary 1984-5*, pp. 3-4; Hong Kong Education Department, "Hong Kong", *op. cit.*, p. 1220-1221; and *The Hong Kong Education System*, pp. 114-115.

Moreover, there are no specific taxes for educational purposes.

All government schools are entirely financed by the government and the aided schools are financed according to the codes of aid which include the Code of Aid for Primary Schools, the Code of Aid for Secondary Schools, the Code of Aid for Special Primary Schools and Special Classes in Primary Schools, and the Code of Aid for Special Schools and Special Classes in Secondary Schools. Grants provided to schools under codes of aid include recurrent grants and non-recurrent and capital grants. Recurrent grants include salaries, capitation, library, administration, janitor staff and cleaning, textbook and stationery, rent and rates. The staff of the government schools are government employees while the staff of all other schools are not. The salaries of all officers (including government school teachers) employed in the Education Department are determined by the government according to the normal civil service procedures. However, salaries in the aided school sector are brought into line with those of comparable posts in the Education Department.

The universities, polytechnics and the Hong Kong Baptist College are given significant grants by the UPGC. Students are charged tuition fees which contribute about 5 to 6 per cent of the recurrent expenditure of the institutions. Grants and loans are available to tertiary-level students for both maintenance and fees.

Prior to the 1960s, the proportion of the government budget devoted to education ranged from 2 to 5 per cent. In 1967, the proportion rose dramatically to 14 per cent, and it rose to 17.6 percent during 1974-1975. The proportion dropped to 13 per cent in 1982 but rose to 17.1 per cent again in 1984. Hence, the percentage of total government expenditure on education has remained reasonably constantly at over 10 per cent over the last two decades.<sup>105</sup>

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<sup>105</sup> Brimer, *op. cit.*, pp. 2306-2307; *The Hong Kong Education System*, pp. 73-91; Sweeting, *op. cit.*, p. 288; and K. M. Cheng, "The Educational Financial - Increased Ostensibly but Decreased in Reality" (in Chinese), *Hong Kong Economic Journal Monthly*, 9(1), 1985, pp. 26-27.

#### **D. Concluding Remarks**

From the above descriptions, it is clear that all three societies possess well established educational systems. The educational structure is most clear-cut in Japan, which adopts a single-track system of the 6-3-3-4 pattern from primary education to university education. In Singapore, the 6-4-2-3 pattern is modified by the New Education System of 1980, according to which students are placed into different streams, which require different years to complete a certain stage of education. In Hong Kong, the educational scene is more complex after the junior secondary level. Students may either continue their studies in grammar schools for senior secondary education or in vocational institutions. Moreover, there are one or two year Sixth-Form courses leading to four years or three years of university education respectively.

Educational institutions in the three societies can be classified into three types according to sources of finance. In Japan, there are national institutions, public (prefectural or municipal) institutions and private institutions. In Singapore and Hong Kong, there are government schools, government-aided schools and private schools.

Pre-primary education in the three societies is neither compulsory nor free, but there has been a great social demand for it. It is mainly offered by kindergartens but also by day nurseries and child-centres. Whilst day nurseries in Japan and creches and children's centres in Singapore are public institutions, kindergartens are privately run in all the three societies. Kindergartens generally offer two to three years of education leading to primary school education. Education at this level generally emphasizes all-round training in domestic habits, social life, linguistic ability, formation of concepts and creativity.

With regard to primary education, while Hong Kong and Japan place stress



on all-round development and the training of basic attitudes and skills, Singapore puts the emphasis on training in language and mathematics. A comparison of their curricula shows that while only one language is taught in Japan, two and three are taught in Hong Kong and Singapore respectively. On average each society devotes 5 to 6 hours on the teaching of the first language, but Singapore and Hong Kong in addition spend 3 to 4 hours a week on the second one. Hence, in both societies the time allocated for language teaching ranges from 9 to 11 hours, comprising about half of the total teaching hours. Relatively speaking, Singapore places a greater emphasis on mathematics as well. In contrast to Hong Kong and Japan where only 2.9 hours and 2.3 to 4.5 hours weekly are allocated for mathematics teaching respectively, Singapore spends 3.5 hours to 4.5 hours weekly on the subject - about an hour more than the other two. Although Singapore places relatively more emphasis on languages and mathematics, the curricula of the three societies show that language, mathematics, social studies and science are the four major subjects taught in primary schools.<sup>106</sup>

In Japan and Hong Kong, Junior secondary education is not only a continuation of the general education which begins in primary school but also a basis for selecting future courses according to individual ability beyond this level of education. In the three societies, the four major subjects of the primary curriculum - languages, mathematics, social studies and science - continue to be significant at the secondary level. In Japan, at this level students may learn a foreign language as one of the elective subjects. Most students who take this option choose English. Taking into account the teaching hours for two languages together, Singapore spends more time on language teaching than Japan and Hong Kong: language teaching occupies 9.3 hours a week in Singapore, but only 6.6 hours in Japan and 8.67 hours in Hong Kong. There is no difference in mathematics teaching hours - 3.3 hours weekly in all three societies. However Singapore places relatively greater emphasis on science - 4 hours a week as compared to 2.67 hours in Hong Kong and 3.3 hours in Japan. On

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<sup>106</sup> See Table 3.4.1.

the other hand, Japan and Hong Kong are more concerned with social studies than Singapore. They spend about 3 to 4 hours a week on the subject while Singapore only spends 2.67 hours.<sup>107</sup>

Senior secondary education in Japan and Hong Kong is beyond the compulsory stage. However, at present, over 90 per cent of children move into senior high schools in Japan. In Hong Kong in 1985, 74 per cent of junior secondary students were allocated school places in the public sector for senior secondary education. While students in Hong Kong and Japan may have to pursue senior secondary education in different schools, students in Singapore continue their senior secondary education in the same schools where they received their junior secondary education. In Hong Kong, students are usually placed in the arts or science stream. While it is not necessary for arts students to take any science courses, they are required to study mathematics to complete their senior secondary education. On the other hand, science students usually take one or two subjects in the arts stream, such as history and geography. In Japan, students are streamed into the general and specialized courses.<sup>108</sup> Nevertheless, regardless of streams, students undertake subjects such as Japanese language, foreign language, social studies, mathematics, and science at this level. Hence Japan requires a more general education at the senior secondary level than Hong Kong. The Singapore educational system used to differentiate students into the arts, science, technical or commercial streams. However under the New Education System of 1980, the streams are mainly characterized by the different emphases on language teaching. Languages and mathematics are still given special attention at this level as all the three streams (normal, special and extended) require students to study these subjects as compulsory examination subjects. However, in the special and extended streams, compulsory subjects include in addition literature or history or geography and a science subject. Singapore thus requires its average and above-average students to cover a wide curriculum. Beyond these compulsory

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<sup>107</sup> See Table 3.4.2.

<sup>108</sup> There are further divisions in the general courses and specialized courses. For the details, see the "upper-secondary education" section of the Japanese educational environment.

examination subjects, there is a wide range of electives for students in all three streams.<sup>109</sup>

On completion of the senior secondary education, students in Hong Kong and Singapore have to sit for public examinations and, based on the examination results, students will be admitted to sixth-Form or pre-university education. In Japan, however there are no public examinations for students at the end of senior secondary schooling. Further, students do not need to go through specific pre-university courses for matriculation. They sit for the joint university entrance examinations and then the entrance examinations of the universities of their choice. As there is only one university in Singapore and there are only two universities in Hong Kong, competition for matriculation is intense. On the other hand, even though higher education enrolment reached 33 per cent of the relevant age group in 1984 in Japan, competition for entrance into prestigious universities is intense. Apart from universities, there are other institutions offering higher education, such as junior colleges in Japan as well as the Baptist College and the post-secondary colleges in Hong Kong. Technical and industrial training are offered by technical colleges and polytechnics in the three societies.

In practice, school syllabuses and curriculum are prescribed by the Ministry of Education or Education Department, and all three societies have their own curriculum development committees within the Ministry of Education or Education Department to advise on the objectives, direction and teaching approach of the school curriculum. The committees also prepare curriculum guides as well as teaching and learning materials. While textbooks and supplementary materials are developed by the Curriculum and Instruction Department in Singapore, textbooks in Hong Kong and Japan are developed by private publishers, and these textbooks have to be approved by the Ministry of Education or Education Department. Comparatively speaking, the power of the Education Department is rather weak in Hong

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<sup>109</sup> See Table 3.4.3.

Kong owing to the existence of a large number of private schools and the lack of compulsion on a school to follow the suggested syllabuses. However, there is in fact little variation in curriculum among schools in any one of the three societies.

Apart from formal schooling, special education and non-formal education are offered in all three societies. Special education for the physically or mentally handicapped children is mainly provided by voluntary organizations in Singapore and Hong Kong. To help this group of children adapt to the society, the ordinary curriculum is taught up to the secondary education level. In Japan, children are screened in pre-school years so that their problems can be identified as early as possible. In Hong Kong, children are screened in primary 2.

Non-formal education is also provided for those whose formal schooling has been interrupted and is offered by both governmental and non-governmental bodies. The Adult Education Section of Hong Kong, the Adult Education Board of Singapore and the Ministry of Education of Japan are official governmental bodies responsible for running courses and organizing activities designed to stimulate people's social awareness, and lead to different qualifications which will improve their vocational prospects. In addition, public libraries, museums, parks, recreational centres, public halls, community centres, extra-mural departments of universities and other voluntary organizations have contributed much to the promotion of non-formal education.

All three societies have facilities for teacher training. All teachers are trained in universities and junior colleges in Japan and in the Institute of Education in Singapore. However, in Hong Kong, graduate teachers are trained in universities whilst non-graduate teachers are trained in colleges of education. In Japan in 1979, 42.4 per cent and 62.9 per cent of the primary school teachers and junior secondary school teachers respectively were university graduates. In contrast, in Hong Kong in 1980, only 6.1 per cent of the primary school teachers and 55.7 per cent of the

secondary school teachers were graduates. Hence, Japan's teaching force is much better qualified than that of Hong Kong. In respect of the proportion of trained teachers in the teaching force, Hong Kong's situation is not as good as that of Singapore. In the early 1980s, about 90 per cent of all teachers were trained in Singapore, but only 40.8 per cent of all the primary school teachers and 39 per cent of all the secondary school teachers were trained in Hong Kong.<sup>110</sup>

In educational administration, the overall responsibility rests on the Ministry of Education in Japan and Singapore and the Education Department in Hong Kong. As Japan is much larger than the other two societies in size, its educational administration is divided into three levels: national, prefectural and municipal. The Ministry of Education takes overall charge of educational matters at the national level, but educational administration at the prefectural and municipal levels is the responsibility of the boards of education and the local governors. However, the administrative responsibilities of the local boards usually extend to the secondary level only. The Ministry of Education and the prefectural and municipal governors administer universities and junior colleges.

In such small places as Singapore and Hong Kong, there are no local education authorities. The educational administration responsibilities of the Ministry of Education or the Education Department extend to the secondary level only. Nominally all government, aided and private schools are under the control of the Ministry of Education or the Education Department. However, only the government schools are directly administered by the central education authority, and other schools are managed by their respective school management boards. However, the education authority supervises and controls the aided schools by requiring the appointment and promotion of teachers to be approved by the authority. As there is still a majority of private schools in Hong Kong and there is no compulsion on these schools to adopt the suggested books or curricula, there are many schools over which the

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<sup>110</sup> For Japan's figures, see Table 3.1.8. For Hong Kong's figures, see *The Hong Kong Education System*, pp. 224-225. For Singapore, see Cowen and McLean, eds., *op. cit.*, p. 467.

Education Department exercises only little control. A feature that is distinctive of Singapore and Hong Kong is that while the responsibility for education rests with the Ministry of Education, technical education and industrial training below tertiary level are under the administration of a special training board - the Industrial Training Board in Singapore and the Vocational Training Council in Hong Kong.<sup>111</sup>

All three societies have a supervisory section in the central authority to carry out school supervision to maintain and improve the quality of education. In Singapore, the Inspectorate comes under the School Division of the Ministry of Education, whereas the Education Department of Hong Kong has a separate Advisory Inspectorate Division. In Japan, the supervision section of the Ministry of Education supervises the local board, whilst the supervision sections of the local boards supervise the schools. Apart from the routine school supervision, the supervisory sections also carry out teacher inspections in connection with promotion. The subject inspectors or specialists also operate courses, workshops and conferences for teachers.

With regard to the educational finance, public compulsory education is almost entirely financed from government revenue in all three societies. In Japan, the financial responsibility for education is borne by the national, prefectural and municipal governments. The national grant and subsidy cover about half of the expenses, and the rest is shared between the prefectural and municipal governments. In Hong Kong and Singapore, all government schools are entirely financed by the government. The aided schools receive current, non-current and capital grants from the government. Private schools do not normally receive government grants but the schools under the "bought place" scheme in Hong Kong receive capital grants. In Japan, teachers in national schools are national public officials and those in local schools are local public officials. In Hong Kong and Singapore, teachers of government schools are civil servants. Those working in aided schools, though not being

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<sup>111</sup> *Education in Singapore*, p. 12 and *The Hong Kong Education System*, p. 33.

civil servants, receive identical salaries. In regard to the government budget for education, in Hong Kong, educational expenditure in the government budget reached 17.6 per cent of the GDP in 1974, and it comprised 13 per cent and 17.1 per cent in 1982 and 1984 respectively. In Singapore, the proportion was as high as 24.3 per cent in 1964 but fell to 11.7 per cent in 1970 and 7.5 per cent in 1980. In Japan, the proportion rose from 5.3 per cent in 1960 to 11.1 per cent in 1979. Hence, in recent years, educational expenditure by the government is about 11 per cent in Japan and Singapore; and Hong Kong's educational expenditure comprises a relatively higher proportion of the Government budget.

Section Two

Education in

Technological Societies



## CHAPTER FOUR

### BECOMING TECHNOLOGICAL SOCIETIES

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#### A. The Emergence of Technological Society

Society changes. Whether on a large or small scale, at a fast or slow tempo, it changes. Major social theorists, both classical and contemporary, all have analysed the change in our societies. More importantly, what they have described is a major change that is fundamental enough to mark the emergence of a new order of society, hence bringing humanity towards "The Age of Discontinuities", in the term of Peter Drucker.<sup>1</sup> Henri de Saint-Simon first described the world of the nineteenth century as one of industrialization. The emergence of the industrial society marked the inception of a critical new epoch in human history - the epoch of positivism, in contrast to the previous two epochs of polytheism and "theological" ideology.<sup>2</sup> Auguste Comte, influenced by but distinct from Saint-Simon, postulated that society was leaving the theological and metaphysical stage and heading towards a new scientific and positive stage.<sup>3</sup> Echoing Saint-Simon, Herbert Spencer advanced the theory that the new society was an industrial society whereas the previous society had been a militant one.<sup>4</sup> These emphases on industrialism as the main feature of the new society were repeated later by Thorstein Veblen, whose theory of social change

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<sup>1</sup> Peter F. Drucker, *The Age of Discontinuities: Guidelines to Our Changing Society* (London: Heinemann, 1969).

<sup>2</sup> Frank E. Manuel, *The New World of Henri Saint-Simon* (Cambridge, Mass.: Harvard University Press, 1956), p. 219-220.

<sup>3</sup> Lewis A. Coser, *Masters of Sociological Thought: Ideas in Historical and Social Context* (New York: Harcourt Brace Jovanovich, 1971), p. 7.

<sup>4</sup> Herbert Spencer, *Principles of Sociology*, ed. Starislav Andreski, abridged edition, (London: Macmillan, 1969), pp. 499-571. Cf. Neil J. Smelser, *Essays in Sociological Explanation* (New Jersey: Prentice Hall, 1968), pp. 245-247.

is mainly a theory of technological evolution.<sup>5</sup> Ferdinand Tonnies also observed the emergence of a new society *Gesellschaft* (association), which he contrasted with the previous one he called *Gemeinschaft* (community). *Gesellschaft*, according to Tonnies, was characterized by artificiality (mechanicality), whereas *Gemeinschaft* was characterized by organic bonds.<sup>6</sup> Emile Durkheim also concluded that a new form of society was emerging, but he in contrast suggested that the nature of the new society would be one of organic solidarity - a society of specialization, complementarity and interdependence - and it would replace the previous, mechanical society, which he characterized as simple, primitive and based on common conscience.<sup>7</sup> Max Weber analysed the development of society under his framework of "rationalization". However, he made a radical distinction between the new society and the old. Modern society, according to Weber, is characterized by practical, theoretical and formal rationalization processes. On the other hand, the traditional society was dominated by substantive rationalization processes.<sup>8</sup>

Whilst the major classical social theorists all discerned the emergence of a new society and accorded it a new name or pointed out new features of the new society according to their own frame of reference, a host of sociologists in the twentieth century such as David Apter, Reinhard Bendix, S. N. Eisenstadt, Alex Inkeles, Marion Levy, Talcott Parsons, and others, simply described the new features of the new society as "modern" or "modernized", in contrast to the "traditional" society.<sup>9</sup>

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<sup>5</sup> Coser, *op. cit.*, pp. 264-267 & 272-274.

<sup>6</sup> Ferdinand Tonnies, *Community and Society (Gemeinschaft and Gesellschaft)*, trans. and ed., Charles P. Looms (New York: Harper & Row, 1957), pp. 33-102.

<sup>7</sup> Emile Durkheim, *The Division of Labour in Society*, trans. George Simpson (New York: The Free Press, 1964), pp. 70-132. Cf. Steve Fenton, *Durkheim and Modern Sociology* (Cambridge: Cambridge University Press, 1984), p. 51.

<sup>8</sup> Max Weber, *Economy and Society*, ed. Guenther Roth and Claus Wittich (New York: Bedminster, 1968), pp. 585, 600 & 1186. Cf. Stephen Kalberg, "Max Weber's Types of Rationality: Cornerstones for the Analysis of Rationalization Processes in History", *American Journal of Sociology*, 85(5), 1980, 1173-1137.

<sup>9</sup> The works of Apter, Bendix, Black, Eisenstadt, Inkeles, Levy, Moore and Parsons were already mentioned in the previous chapter. For the others', see Richard D. Brown, *Modernization: The Transformation of American Life 1600-1865* (New York: Hill and Wang, 1976); Samuel P. Huntington, "The Change to Change: Modernization, Development and Politics" in Cyril E. Black, ed., *Comparative Modernization* (New York: The Free Press, 1976); and Daniel Lerner, *The Passing of Traditional Society: Modernizing the Middle East* (New York: The Free Press, 1964).

However, to many social theorists and the futurologists, this new age is so distinct and different that it should be called the "post-" era. Roderick Seidenberg in 1950 advanced the concept of "post-historic" man. Ralf Dahrendorf in 1959 proclaimed the emergence of "post-capitalist" society. George Lichtheim in 1963 pointed out that contemporary society was becoming "post-bourgeoisie". Kenneth Boulding in 1964 saw evidence of the emergence of the "post-civilized" era. Amitai Etzioni in 1968 thought that the "post-modern" period had come about in 1945. Sydney Ahlstrom in 1970 employed the terms "post-Protestant" and "post-Christian" to describe the religious situation of the U.S.A. in the sixties. John Leonard perceived the birth of a "post-Literature culture". Moreover, throughout the last two decades, a host of terms denoting the coming of the "post-" era have been invented, such as "post-market", "post-mass consumption", "post-organization", "post-economic", "post-scarcity", "post-welfare", "post-liberal", "post-materialist", "post-civilization", "post-maturity", and so on.<sup>10</sup> Above all, the concept of "post-industrial society", fully expounded by Daniel Bell, is widely accepted and has led to the development of the "Sociology of Post-Industrial Society".<sup>11</sup>

Social development is almost always accompanied by ideological development. Hence, the post- era, or more specifically the post-industrial era, should not only be

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<sup>10</sup> Roderick Seidenberg, *Post-historic Man: An Inquiry* (Chapel Hill: University of North Carolina Press, 1950), pp. 56 & 179; Ralf Dahrendorf, *Class and Class Conflict in an Industrial Society* (London: Routledge & Kegan Paul, 1959), pp. 241ff.; George Lichtheim, *The New Europe: Today and Tomorrow* (New York: Praeger, 1963), p. 194; Kenneth Boulding, *The Meaning of the Twentieth Century: The Great Transition* (London: Allen & Unwin, 1965) p. 2; Amitai Etzioni, *The Active Society* (New York: The Free Press, 1968), pp. vii-viii; Sydney E. Ahlstrom, "The Radical Turn in Theology and Ethics: Why It Occurred in the 1960s", *The Annals*, 387, Jan 1970, 3; Herman Kahn and Anthony J. Weiner, *The Year 2000: A Framework of Speculation on the Next Thirty-Three Years* (New York: Macmillan, 1967), p.25; and Seymour Martin Lipset, *Political Man: The Social Bases of Politics* (London: Heinemann, 1963), p. 82. For a collection of the terms for the "post-" era, see Daniel Bell, *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (London: Heinemann, 1974), pp. 49-54 & 503-504.

<sup>11</sup> The notion of "post-industrial society" is fully expounded in Daniel Bell's *The Coming of Post-Industrial Society*. The other standard works on the topic are Alan Touraine's *The Post-Industrial Society* (London: Wildwood House, 1974) and Krishan Kumar's *Prophecy and Progress: The Sociology of Industrial and Post-Industrial Society* (Harmondsworth: Penguin Books, 1978). Richard Badham has also given a concise introduction to the concept. See Richard Badham, "The Sociology of Industrial and Post-Industrial Society", *Current Sociology*, 32(1), Spring 1984, pp. 1-94.

characterized by specific social phenomena but also by specific ideological features. This is why the social theorists of the post- era have also expounded the post-ideological notion. Daniel Bell, Seymour Lipset and Edward Shils have developed the thesis of the “end of ideology”, which suggests that the modern society is moving towards a phase where the significance of ideological preference in society is declining and will be replaced by industrialism:

There is relatively little difference between democratic left and right, the socialists are moderates, and the conservatives accept the welfare state. In large measures, this situation reflects the fact that in these countries the workers have won their fight for full citizenship.<sup>12</sup>

To many, modern advanced industrial or post-industrial societies have already reached the ideal, mature or post-mature stage. However, the futurologists are still looking forward. Although acknowledging that radical social change has already taken place, the futurologists perceive society as dynamic in nature, ever moving ahead like waves, heading towards a further stage. This is the idea advanced by the futurologist Alvin Toffler in his *The Third Wave*. Toffler argues that human society has undergone waves of change. The First Wave was the agricultural revolution, which took a thousand years to play itself out. The Second Wave was the rise of the industrial revolution, which lasted about three hundred years. Present society is now experiencing the Third Wave of change, which will lead to a remarkable and new civilization. This new civilization will be based on diversified, renewable energy sources; on new, non-nuclear families; on “electron cottage”, and on radically changed schools and corporations.<sup>13</sup>

All the above-mentioned social theorists and futurologists have chronicled a

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<sup>12</sup> Lipset, *op. cit.* and Lipset, “Ideology No End: The Controversy till Now”, *Encounter*, 39(6), 1972, 17-22. See also Daniel Bell, *The End of Ideology* (Illinois: The Free Press, 1960), pp. 369-375; Raymond Aron, *The Opium of the Intellectuals*, trans. Terence Kilmartin (London: Secker & Warburg, 1957), pp. 149-155 & 305-324; Edward A. Shils, “End of Ideology?” *Encounter*, 5(5), 1955, 2-9; and Job L. Dittberner, *The End of Ideology and American Social Thought: 1930-1960* (Michigan: UMF Research Press, 1979), pp. 248-251.

<sup>13</sup> Alvin Toffler, *The Third Wave* (London: Pan Books, 1980), pp. 23-24.

radical change in society since the nineteenth century, especially during the last two decades. Scrutinizing their analyses and theories of change, however different and varied they are, it can be seen that they have centred on a common theme. Whether this new age is to be industrial, post-industrial, modern, post-modern, post-ideological, or under the Third Wave, the key to the change is - technology. The discussions of the social theorists of the nineteenth and the twentieth centuries can be mainly summarized as a discussion of the impact of industrialization, in which technology certainly plays a significant part.<sup>14</sup>

Saint-Simon, Comte and Spencer are clearly optimists who consider industrialization to be the way forward for all non-industrial societies which will lead these societies to a mature and organic state. And there is a logic of industrialism in the “theory of convergence”, which claims that all societies that have embarked on industrialization will finally converge towards one basic form, characterized by the industrial order, where science is identified with reason and industry with progress.<sup>15</sup>

Durkheim’s analysis of social change is mainly based on his thesis of societies being transformed from mechanical solidarity to organic solidarity. The organic society is one which is characterized by individuality. When each of society’s elements has freedom of movement, the society becomes most capable of collective movement - like the human organism, “the unity of the organism is as great as the individuation of the parts”.<sup>16</sup> The way to achieve an organic society is greater social density, or more specifically, increasing moral and dynamic density. Interestingly, two of the three factors that Durkheim suggests which may promote greater social density are

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<sup>14</sup> Cf. Kumar, *op. cit.*, pp. 61-63 and Anthony Giddens, *Studies in Social and Political Theory* (London: Hutchinson, 1979), p. 17.

<sup>15</sup> Kumar says, “On the whole the nineteenth-century thinkers held the strong form of the convergence thesis”, which held that there is a *world* process of convergence onto a uniform industrial type. Kumar, *op. cit.*, pp. 150 & 349. See also Badham, *op. cit.*, p. 24. Although Herman Kahn and Anthony Weiner claimed that they reject the convergence theory, they ironically held that there will be increasing universality of the “multiple trend” toward a number of features including worldwide industrialization and modernization. See Herman Kahn and Anthony J. Weiner, *The Year 2000: A Framework of Speculation on the Next Thirty-Three Years* (New York: Macmillan, 1967), pp. 21 & 50-57.

<sup>16</sup> Durkheim, *op. cit.*, p. 131.

concerned with industry or technology. The first factor is population concentration, but population concentration is brought about by “industrial life”. Another factor is the number and rapidity of ways of communication and transportation which means the improvement of communication and transportation technology. Hence, industrialization and technology play a significant role in a society’s transition from the mechanical stage to the organic stage.<sup>17</sup>

Max Weber makes his analysis of social change within his framework of rationalization processes. However, as Anthony Giddens has pointed out, “the rationalization of technology and economic life, consolidated by the general progression of bureaucracy ... is for Weber the most distinctive feature separating the traditional world from the world of modern capitalist enterprise; and ‘rationalization’, in Weber’s discussion, has the same conceptual consequence as ‘industrialization’ has in the theory of industrial society.”<sup>18</sup>

Karl Marx, who sees social transition in three stages from feudalism to capitalism to socialism, also perceives that technology has a role to play in social change. Technology, according to Marx, is the force in society affecting the social relations of production, and these in turn affect the superstructure. Moreover, the dominant class will eventually employ technology for both ideological and economic ends.<sup>19</sup>

The notion of “modernization”, as pointed out in the previous chapter, has been given a variety of definitions. Nevertheless, however different their definitions are, scholars do not define it without mentioning the role of technology as an essential ingredient of modernization. Peter Berger et al. have put it in a nutshell: “A central feature of the modern world is technological production. Hence, moderniza-

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<sup>17</sup> *Ibid.*, pp. 256-260. See also John B. Harns, “Reason and Social Change in Durkheim’s Thought: The Changing Relationship between Individuals and Society”, *Pacific Sociological Review*, 24(4), Oct 1981, pp. 398 & 404-405.

<sup>18</sup> Giddens, *op. cit.*

<sup>19</sup> Karl Marx, *Capital I* in T. B. Bottomore, eds., *Karl Marx: Selected Writings in Sociology and Social History* (Harmondsworth: Penguin Books, 1963), p. 79. See also N. Rosenberg, “Marx as a Student of Technology”, *Monthly Review*, 28, 1976, 56-77.

tion is actually 'the institutional concomitants of technological induced economic growth'."<sup>20</sup>

Considering the post- era thesis, the significance of technology is implicit in the widely accepted notion of "post-industrial society". On the other hand, even in Dahrendorf's "post-capitalism", the "logic of industrialism" can be traced.<sup>21</sup> In the "post-ideological" or "the end of ideology" thesis, the shadow of technology can be found as well. In the ideal state of society, ideological ends are to be accomplished by the relegation of all remaining political and social questions to mere technical issues. "Even forms of ownership and methods of regulation, which were the subject of doctrinal or ideological controversies during the past century seem to ... belong to the realm of technology," says Raymond Aron.<sup>22</sup>

Studying futurology, it is not difficult to find out that one of the major concerns of the subject is the development and social impact of technology.<sup>23</sup> Toffler's *Future Shock* is an analysis and a forecast of the impacts of technology. His Third Wave thesis is mainly based on his perception of the development of technology that may shape the new civilization. The Third Wave, according to Toffler, is "highly technological and at the same time anti-industrial", suggesting that technology will advance in a stage that is different from the conventional industrial society. At this new stage, the drawbacks of industrialization and technology will be reduced to a minimum, thus making the human society a sort of *paradise*.<sup>24</sup>

Surely there are optimists and pessimists among the social theorists, but what is of interest here is the preoccupation of sociology with discussing the significance of

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<sup>20</sup> Berger, Berger and Kellner, *op. cit.*, pp. 15 & 29.

<sup>21</sup> Dahrendorf, *op. cit.*, pp. 40-41 & 243.

<sup>22</sup> Raymond Aron, *The Industrial Society* (London: Weidenfeld & Nicholson, 1967), pp. 164-165. See also Badham, *op. cit.*, p. 31.

<sup>23</sup> Alan E. Thompson, *Understanding Futurology: An Introduction to Futures Study* (Vermont: David & Charles, 1979), p. 16.

<sup>24</sup> Toffler, *op. cit.*, p. 24.

industrialization and technology.<sup>25</sup> The significance of technology in society today may be further illustrated by some quantitative examples. Goldsmith and Mackay point out that since 1939 about three times as much money and effort has been spent on science as in all of human history before that year.<sup>26</sup> Moreover, according to the U.N. Auger Report of 1960, 90 per cent of all the scientists and researchers who have lived ever since the beginning of history are alive and active today.<sup>27</sup>

All this can justify the assertion that technology has played an overwhelming role in the new era of human society. And it can be argued that the present form of society is a technological one. By "technology", I mean the systematic application of scientific or other organized knowledge to practical skills which leads to enhanced efficiency.<sup>28</sup> Hence, the concept of "technological society" embraces the notions of industrial and post-industrial society, as technology is the key to industrial development. "Technological society" is a concept broader than those of "industrial" or "post-industrial" society. For example, Giddens considers that "modern technology is not 'post-industrial' at all, but is the fruition of the principle of accelerating technical growth built into industrialism as such."<sup>29</sup> David Firnberg, past Director of the National Computer Centre in Britain, considers technological society to be a stage beyond that of industrial society: "We are witnessing a change from industrial to technological society, a circumstance conditioned in large part by the development of microelectronics."<sup>30</sup> The concept of "technological society" matches Ellul's notion of "technique", which emphasizes the employment of rational methods for absolute efficiency. It can be extended to Galbraith's notion of "technostructure",

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<sup>25</sup> Badham, *op. cit.*, p. 28.

<sup>26</sup> M. Goldsmith and A. C. Mackay, eds., *The Science of Science*, revised edition (Harmondsworth: Penguin Books, 1966).

<sup>27</sup> Cited by Philip A. Coggin, *Technology and Man: The Nature and Organization of Technology in Modern Society* (Oxford: Pergamon, 1980), p. 6.

<sup>28</sup> Adapted from John Kenneth Galbraith, *The New Industrial State*, second edition, (London: Andre Deutsch, 1972), p. 12 and Jacques Ellul, *The Technological Society*, trans. John Wilkinson (London: Jonathan Cape, 1964), p. xxxiii.

<sup>29</sup> See Anthony Giddens, *The Class Structure of the Advanced Societies* (London: Hutchinson, 1973), p. 262.

<sup>30</sup> Cited by S. L. Chen, "The Powerful Agent of Change", *Computer Asia*, 19 May 1980, p. 29.



which refers to the participation of specialists in organizational decisions;<sup>31</sup> and to William Smyth's "technocratic society", which refers to "the peak of an ideal society where the rule of the people is made effective through the agency of their servants, the scientists and technicians."<sup>32</sup>

Although the above analyses of the emergence of technological society have been mainly focused on the advanced Western countries, Clark Kerr and his associates believe that "at a faster or slower pace, the peoples of the world are on the march towards industrialism".<sup>33</sup> An examination of Asian societies such as Japan, Singapore and Hong Kong may prove that these communities have also joined the march towards the technological society.

## **B. Japan, Singapore and Hong Kong as Technological Societies**

Technological development is one of the major concerns in Japan. As a member of the OECD countries, it "considers that rapid development and diffusion of new technologies are vital to economic and social progress", and thus "will adopt policies to facilitate the continuing widespread diffusion and exploitation of new technologies within the framework of policies".<sup>34</sup>

Japan's history of industrialization can be traced back to the eighteenth century when the "first industrial revolution" took place. Stress at this stage was placed on the mechanization of light industries such as spinning and textiles. The "second industrial revolution" took place in the nineteenth century. Industrialization at this stage was characterized by the development of heavy industries such

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<sup>31</sup> Galbraith, *op. cit.*, pp. 70-71.

<sup>32</sup> Cited by Bell, *The Coming of Post-Industrial Society*, p. 349.

<sup>33</sup> Clark Kerr et al., *Industrialism and Industrial Man: The Problem of Labour and Management*, second edition, (Harmondsworth: Penguin Books, 1973), p. 29.

<sup>34</sup> "Declaration on the Social Aspects of Technological Change", The OECD Manpower and Social Affairs Ministerial Meeting, 18-19 Nov 1986, cited by "Job Creation in a Changing Economy", *The OECD Observer*, (144), Jan 1987, 11.

as steel, petrochemicals, household appliances and car industries.<sup>35</sup> The twentieth century marks another breakthrough of the development of technology and industry in Japan. By the 1960s, Ardath Burks suggests, Japanese society was becoming an “information society”.<sup>36</sup> In the late 1970s, according to James Morley, Japan was in transition to Bell’s post-industrial era. Ardath Burks also considered that Japan already possessed the major characteristics of a post-industrial society.<sup>37</sup> Hence, some hold that Japan is at present experiencing the “third industrial revolution”, which is transforming the country into a society of high technology, represented by robots, numerically controlled machine tools, computers, semiconductors, telecommunications equipment, and medical electronics.<sup>38</sup> With this new industrial revolution, Japan is said to be entering Toffler’s “third wave” category, the age of “softnomics” and “software-ization”.<sup>39</sup>

An emphasis on the development of technology has been thought important for emulating the West. Since the start of its modernization, not only did the Japanese crave for Western ideas but also technologies, and research in modern science started in as early as 1868 during the Meiji period.<sup>40</sup> The initial effort was assimilation and adaptation of technical ideas originating in the West, thus making

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<sup>35</sup> Shumpei Kumon, “Designs for a New Industrial Society”, *Japan Echo*, 13, (Special Issue), 1986, 3; Yuji Masuda, “Technology in the Advanced Society”, *Japan Echo*, 13, (Special Issue), 1986, 5. Historical phasing of Japan’s industrialization has been a debatable topic. For example, Kazushi Ohkawa and Henry Rosovsky consider 1865-1930 the period of the first industrial revolution while the second industrial revolution started in 1930. On the other hand, Chen Shuifeng regards 1890 as the start of the first industrial revolution but he leaves the date of the second industrial revolution unclear. However he has listed out the details of the development of specific industries under the two industrial revolutions. See Chen Shuifeng, *A History of Japanese Civilization* (in Chinese) (Taipei: Shuangwu Press, 1967), pp. 255-264 and Kazushi Ohkawa and Henry Rosovsky, “A Century of Japanese Economic Growth” in W. W. Lockwood, ed., *State and Economic Enterprise in Japan* (Princeton: Princeton University Press, 1965), p. 88.

<sup>36</sup> Burks, *op. cit.*, p. 171.

<sup>37</sup> *Ibid.*, pp. 171-172 and James William Morley, “The Futurist Vision” in James William Morley, ed., *Prologue to the Future: The United States and Japan in the Postindustrial Age* (Lexington, Mass.: D. C. Heath & Co., 1974), p. 8.

<sup>38</sup> Masuda, *op. cit.*

<sup>39</sup> “Softnomics: A New Path for the Post-industrial Age”, *Look Japan*, 10 May 1986, 10; and Kumon, *op. cit.*

<sup>40</sup> Itakura Kiyonobu and Yagi Eri, “The Japanese Research System and the Establishment of the Institute of Physical and Chemical Research” in Nakayama Shigeru, David L. Swain and Yagi Eri, eds., *Science and Society in Modern Japan* (Cambridge, Mass.: The MIT Press, 1974), p. 158.

Japan a well-known imitator. During 1955-1961, for example, 2,500 delegates were sent by the Japan Productivity Centre to the U.S.A. to investigate advanced technology and how it might be applied in Japan.<sup>41</sup> However, today, Japan's advance in technological innovation has enabled it to shed its "copycat" image. Following the economic summit meeting in Japan in 1983, a list of eighteen specific projects of new technologies was drawn up by the advanced industrial countries which would participate. Japan, being anxious to show its innovation capability, led three of them and participated in a total of 13 developments.<sup>42</sup>

MITI, the Ministry of International Trade and Industry, has played a significant role in Japan's technological development, and it plays a major part in shaping long-term planning. Since 1950, MITI has kept a detailed list of proposed new technologies for use in evaluating licensing agreements between Japanese and foreign firms. In 1957, it helped to re-organize the country's computer manufacturers. In the 1970s, it implemented a rapid programme of development in the information- and machine-technology industries. In 1981, it designed a new project for the development of fundamental technologies for the "next generation industries". By the end of 1983, it was caring for twenty-one separate industrial concerns. MITI's Agency for Industrial Science and Technology (AIST) has sponsored the national research and development programme. Research work is done by sixteen MITI-operated industrial laboratories in co-operation with private bodies, such as the Nomura and Mitsubishi research institutes, and the universities.<sup>43</sup>

Imitating California's Silicon Valley, Japan has developed its own "Science Park". Conceived in 1963, the Tsukuba Science City began to operate in the 1970s. By 1980, there were 43 government research institutes, two universities and other private institutes operating in the City. The most notable ones are the National

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<sup>41</sup> Roy Hofheinz, Jr. and Kent E. Calder, *The Eastasia Edge* (New York: Basic Books, 1982), p. 146.

<sup>42</sup> Michael Smith, "Japan" in Michael Smith et al., *Asia's New Industrial World* (London: Methuen, 1985), p. 21.

<sup>43</sup> Smith, *op. cit.*, p. 19 and Hofheinz and Calder, *op. cit.*, pp. 149-155.

laboratory for High Energy Physics (KEK), Tsukuba's Electrotechnical laboratory (ETL), and Intel (of California's Silicon Valley). ETL is responsible for the basic research in six of the nine large-scale research projects that have been launched by AIST. The Fifth Generation project, which aims at creating a computer that can think for itself, i.e. artificial intelligence, is now entering its intermediate phase of development. Other famous ETL projects are laser research, the Sunshine (solar energy, hydrogen and new energy technology) project, the Moonlight project, and its twelve projects for the development of the next-generation industry.<sup>44</sup>

Research and Development (R & D) is given high priority in Japan. Japan's overall expenditure on R & D is now among the largest in the world and is growing fast. By 1981, R & D was 2.4 per cent of GNP, which was only 0.1 per cent less than America. Japan plans to raise its R & D spending to 3 per cent of GNP by the mid-eighties, potentially making it the second largest R & D investor in the world. The greater part of the expenditure is concentrated in six areas are receiving greatest attention. They are electronics-information, new materials, biotechnology, new energy, and the factory automation areas of industrial robots and FMS (flexible manufacturing system). Expenditure on the development of these areas reached 5 per cent of GNP in 1984.<sup>45</sup>

As a result of such strong emphasis on technological development, Japan's technology is now among the most advanced in the world. In 1983, the U.S. Commerce Department report, *An Assessment of U.S. Competitiveness in High Technology 1983*, pointed out that Japan was capable of rivaling the U.S. in computer hardware and that Japan's competitiveness in memory IC and optical communications was becoming greater.<sup>46</sup> Nicholas Valery, in 1986, reported that in respect of high

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<sup>44</sup> Smith, *op. cit.*, pp. 10-11; Hofheinz and Calder, *op. cit.*, p. 151; and Gene Gregory, "Science City: The Future Starts There", *Far Eastern Economic Review*, 28 Mar 1985, 43-50. For the details of the Fifth Generation project, see Edward A. Feigenbaum and Pamela McCorduck, *The Fifth Generation* (Reading, Mass.: Addison-Wesley, 1983).

<sup>45</sup> Smith, *op. cit.*, p. 13 and "Trend of High Technology and Japan's Problem", *MERI's Monthly Circular*, Jan 1986, 7.

<sup>46</sup> "Trends of High Technology and Japan's Problem", *op. cit.*

technology exports, America had increased its market share only in three industries - communications and electronics, office automation, and ordinance; however Japan was already taking the lead in fibre optics for telecommunications, gallium arsenide memory chips for superfast computers, numerically-controlled machine tools and robots, and computer disk-drives, printers and magnetic storage media.<sup>47</sup> Japan's production of robots is overwhelming. In December 1984, Japan produced 64,000 robots, while the U.S.A. and Germany only produced 13,000 and 6,600 respectively (see Table 4). Japan's technological development is continuing and fast growing, especially orientated towards information and electronics technology.<sup>48</sup>

Japan is certainly the leading technological society in Asia. However, after Japan are four other strong "new industrial countries" - Singapore, Hong Kong, Korea and Taiwan, which are often called "Asia's Big Four". Although in no way comparable to Japan in respect of technological advancement, the development of technology is emphasized in Singapore and Hong Kong.

From the achievement of independence in 1959, the government of Singapore realized that industrialization was vital for its survival as a country. At the time, because of the lack of natural resources, growing unemployment, high birth rate, and the trading competition from neighbouring countries, "the government made a major entrepreneurial decision. Singapore would industrialize." They considered that they had "no other choice", but industrialization.<sup>49</sup> In the early sixties, technological products were mainly based on textiles, food, beverages, footwear, and leather industries. From the mid-sixties to the early seventies, the government began to attract multinational companies to develop "new" technology industries in Singa-

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<sup>47</sup> Nicholas Valery, "High Technology: Clash of the Titans", *The Economist*, 23 August 1986, 7.

<sup>48</sup> Naohiro Amaya, "A Primer for the New Civilization", *Japan Echo*, 13, (Special Issue), 1986, 86 and "Trends of High Technology and Japan's Problem", *op. cit.*

<sup>49</sup> Ho Wing Meng, "Education for Living or Singapore's Answer to the Problem of Technological Development versus Cultural Heritage" in R. E. Vente, R. S. Bhathal and R. M. Nakhoda, eds., *Cultural Heritage versus Technological Development: Challenges to Education* (Singapore: Maruzen Asia, 1981), p. 139 and David C. E. Chew, "A Human Interpretation of Singapore's Economic Development" in *Towards Tomorrow: Essays on Development and Social Transformation in Singapore* (Singapore: National Trades Union Congress, 1973), p. 112.

pore. The “new” technology industries were the “modern” industries developed in the last fifty years in the advanced countries. Until the late seventies, industries in Singapore were mainly labour-intensive. However in the face of increasing competition from other low-cost producers such as Taiwan and Thailand, Singapore shifted to the more skill intensive industries, such as petroleum, chemicals, plastics, electronics, electrical and precision optical products. In 1979, the government promulgated its new strategy of high-technology promotion which marked a turning-point in Singapore’s history of technology.<sup>50</sup> With this new strategy, Singapore is said to have started its “second industrial revolution”.<sup>51</sup> Much of this industrial revolution is characterized by the development of knowledge-based information technology, such as computer and telecommunication. Tom Stonier, head of the School of Science and Society at Bradford University, has used Singapore as an example of a prospective post- industrial success.<sup>52</sup> Peter Large regards Singapore’s lack of established industry and its lack of resources as an asset for its achievement of the post-industrial stage:

Singapore holds the richest asset for success in the post-industrial world - the asset of having nothing: no longer-standing heavy industry to deaden its itch for change; no rich raw-material resources, like North Sea oil, to provide a treacherous cushion.... Therefore it depends starkly for the 1990s and beyond on what the Singapore Establishment calls the “brain industries” ...<sup>53</sup>

As industrialization is the key strategy for Singapore’s growth and development, the government has been active in boosting the inflow of technology for technology-transfer by attracting industrial investments. The Economic Development Board (EDB), set up in 1961, is the operational arm of the Ministry of Trade and Industry on industrial matters. A wide range of policies has been adopted by

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<sup>50</sup> R. S. Bhathal, “Impact of Technological Changes and Developments” in Saw and Bhathal, eds., *op. cit.*, p. 88

<sup>51</sup> “Singapore’s Attempt of the Second Industrial Revolution” (in chinese) in Alex Josey, *Singapore - Its Past, Present and Future*, Chinese version, trans. Gu Xiaoning and Su Ruefong (Taipei: Chang He Press, 1981), pp. 289-291 and Peter Large, “Singapore” in Smith, *op. cit.*, p. 73.

<sup>52</sup> Large, *op. cit.*, p. 72.

<sup>53</sup> *Ibid.*, p. 67.

the EDB to promote industrial investment, including zero tax on company profits for five to ten years, investment allowances, international consultancy services, capital assistance schemes, product development assistance schemes, royalties schemes, foreign loans and small industries finance schemes, and so on. Under the 1979 new strategy for the Economic Restructuring Process, vigorous measures were taken to encourage the promotion of high technology in Singapore. These included a three-year wage correction policy from 1979 to 1981 to stimulate the development of technology-intensive industries, the establishment of the Skills Development Fund, more training schemes to increase technical manpower, new incentives to encourage mechanization and computerization, and selective industrial promotion with emphasis on capital, technology and skill-intensive industries and brain services, and so forth. The Science Council of Singapore was established in 1967 to assist the government in promoting the development of the nation's scientific and technological capabilities. Like Japan's MITI, the Council identifies and collects information on areas of science and technology which are considered likely to promote economic growth in Singapore now and in the future. It conducts regular studies in specialized areas such as the national patent system, nuclear power technology, chemical engineering and the electrical manufacturing industry. It also promotes international co-operation in scientific and technological development. Since 1980, it has been the Secretariat for the ASEAN Committee on Science and Technology (COST) and has provided administrative support to ASEAN projects such as food Technology, R & D and Non-Conventional Energy Research.<sup>54</sup>

Not only have Japan and Taiwan developed their Science Parks, Singapore is also building its own Science Park for promoting R & D and "brain services". In 1986, there were 16 firms and organizations operating in the Park, representing a mixture of biotechnology, microelectronics, robots and computer-related activities. Some firms including Tata-Elxsi, Plantek International, Mentor Graphics, Scientech-Intraco and Diagnostic Biotechnology came from the U.S.; others, such

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<sup>54</sup> *Singapore 1983*, pp. 73-84 and Hung Shuo, "The Orientation of Economic Development in Singapore" (in Chinese), *The Perspectives*, (185), 16 Oct 1985, 33-34.

as Takasago from Japan. Singaporean firms, such as Radan Systems and the Automation Applications Centre are also established at the Science Park.<sup>55</sup> The 1979 new scheme has placed strong emphasis on the development of R & D for high technology in the country, and R & D is one of the fastest growing activities in Singapore. By 1983, more than 170 establishments were undertaking R & D activities.<sup>56</sup> In 1984, there were about 5,000 research scientists, engineers, technicians and supporting staff engaged in R & D activities as compared to about 2,700 in 1982. Expenditure on R & D activities in Singapore in 1984 amounted to US\$214 million or 0.6 per cent of GNP as compared to 0.3 per cent and 0.2 per cent in 1982 and 1978 respectively.<sup>57</sup> Government expenditure on R & D was mainly in the field of engineering and technology which comprised 61 per cent of government sector R & D expenditure.<sup>58</sup> Six areas are identified as likely to have a significant impact in the future thus enjoying priorities in R & D activities. They are: information technology, biotechnology/biomedical, robotics and artificial intelligence, microelectronics, laser technology and electro-optics and communications technology.<sup>59</sup>

Being a small country has not lessened Singapore's ambition in scientific innovation. Innovative ideas and skills are regarded as prerequisite for the promotion of high technology in the country. In the early 1980s, Singapore has succeeded in creating its home-grown computer, Cubic 99. It has also been able to design indigenous robotics. In the Technology Fair 86, what attracted most attention was the display of the 103 indigenous innovations which the Singaporeans were proud of.<sup>60</sup>

Although Singapore cannot, as yet, be placed among the most advanced countries in respect of science and technology, it is probable that its development in

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<sup>55</sup> "Singapore: An Overview" in Philip Moore et al., eds., *Singapore Science and Technology* (Singapore: Science Council and Cheney Associates and IMR, 1986), p. 4 and "Science Park: Window on the Future" in Moore et al., eds., *op. cit.*, p. 20.

<sup>56</sup> Large, *op. cit.*, p. 81.

<sup>57</sup> "Making R & D Work for Singapore: An Interview with Professor Choo Seok Cheow" in Moore et al., eds., *op. cit.*, p. 8.

<sup>58</sup> "Vital Role of R & D in Nation's Future Growth" in Moore et al., eds., *op. cit.*, p. 15.

<sup>59</sup> "Making R & D Work for Singapore", *op. cit.*

<sup>60</sup> Zakaria Buang, "Toying with Ideas", *Mirror*, 22 (9), 1 May 1986, 13.



science and technology will fully keep pace with the rapid advancement in other parts of the world.<sup>61</sup> Singapore's employment of high technology in industries and in society is impressive. The first industrial robot made its Singapore *debut* in 1980 and by the end of 1984, more than 950 robots and manipulators were in use.<sup>62</sup> From 1980 to 1984, the number of minicomputer and mainframe installations grew over fivefold from 350 to 2,000. Moreover, it is projected that by the early 1990s, Singapore will be one of the first countries in the world to implement a nationwide Integrated System Digital Network based on fibre-optics technology. Singapore has achieved outstanding development in electronics and information technology which embrace the employment of computer, telecommunications and office systems technologies. Such progress qualifies Singapore to become an information society.<sup>63</sup>

Unlike Japan and Singapore, the government of Hong Kong, based on its *laissez faire* policy, has adopted "positive non-interventionism" in industrial promotion. Although having had flourishing growth in industry since World War II, faced with keen competition from the other three members of Asia's Big Four and other low-cost producers, Hong Kong's progress in industries and technology has been recently deemed unsatisfactory. There is no lack of complaint in the industrial and academic sectors. Y. W. Leung, Standing Committee member of the Chinese Chamber of Commerce and S. H. Ng, senior adviser of the Hong Kong Productivity Centre complain that Hong Kong has already fallen behind South Korea and Taiwan in respect of electronics production technology.<sup>64</sup> Victor Sit, lecturer of the University of Hong Kong, points out that research capability and local raw materials are two important elements for developing industries of high technology which Hong Kong lacks. Moreover, the fact that the Hong Kong government does not support technology development is demonstrated in its negative response to the

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<sup>61</sup> "STC Answers the Question of Balance" in Moore et al., eds., *op. cit.*, p. 14.

<sup>62</sup> "Extending the Arm of Robots" in Moore et al., eds., *op. cit.*, p. 29.

<sup>63</sup> "Information Technology - Changing the Life of the Man in the Street" in Moore et al., eds., *op. cit.*, p. 27 and Large, *op. cit.*, p. 68.

<sup>64</sup> Zeng Ziangqiang, "The Future of Hong Kong Industries" (in Chinese), *The Economy Weekly*, 18 Jun 1984, 6 and Zeng Zhongrong, "Who Can Save the External and Internal Crises of Hong Kong Electronics Industry?" (in Chinese), *Pai Sing Semi-Monthly*, 109, 1 Dec 1985, 66.

proposal of the Electronics Industry Report of 1982 to set up the Electronics Technology Development Laboratory.<sup>65</sup> Yin-Ping Ho, another lecturer, considers that government action on the recommendations of the *Advisory Committee Report on Diversification of 1979* for industrial restructuring is too slow.<sup>66</sup> Yun-Wing Sung, lecturer at the Chinese University of Hong Kong suggests that a “weak technological base, especially in industrial electronics” constitutes one of the major weaknesses of Hong Kong manufacturing industries.<sup>67</sup> Clas Gotze, Managing Director of a tool factory, complains of Hong Kong’s backwardness in the field of engineering which is reflected in rapid asset depreciation.<sup>68</sup> Ho further points out, “what is lacking in Hong Kong at the present is a centralized technology promotion and information centre to ‘localize’ imported technology and to disseminate such information to local industry on the one hand, and to serve as a central point of contact for those seeking information on new technology and on fostering industrial sophistication on the other.”<sup>69</sup>

All these complaints, anxieties and worries about Hong Kong’s decline in international competition emphasize the significance which industrialization has in the minds of the people in Hong Kong. Hong Kong’s economy mainly depends on the development of industries and industrialization is essential for the survival of the society. Early in 1956, the *Hong Kong Annual Report* pointed out: “Hong Kong’s economic survival was due to the expansion of, and a revolution in, its industry.”<sup>70</sup> With this awareness, Hong Kong became one of the earliest societies to industrialize after the Second World War, and constant attempts have been taken to improve

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<sup>65</sup> Victor F. S. Sit, “Hong Kong Industries: Prospects after the 1997 Settlement” in Y. C. Jao et al., eds., *Hong Kong and 1997: Strategies for the Future* (Hong Kong: Hong Kong University Press, 1985), p. 275

<sup>66</sup> Yin-Ping Ho, “Hong Kong’s Trade and Industry: Changing Patterns and Prospects” in Joseph Y. S. Cheng, ed., *Hong Kong in Transition* (Hong Kong: Oxford University Press, 1986), p. 191.

<sup>67</sup> Yun-Wing Sung, “The Role of the government in the Future Industrial Development of Hong Kong” in Y. C. Jao, *op. cit.*, p. 430

<sup>68</sup> Mary Lee, “A Spiral of Decreasing Quality”, *Far Eastern Economic Review*, 23 Nov 1979, 72.

<sup>69</sup> Ho, *op. cit.*, p. 195.

<sup>70</sup> “A Problem of People” in *Hong Kong 1956* (Hong Kong: Government Printer, 1957), p. 11.

product quality and to maintain a high growth rate.<sup>71</sup>

As a result of the increasing demand for the government to take a more active role in the economy, it set up an Advisory Committee on Diversification in 1977 to study policies for industrial restructuring. After two years, the Committee submitted its report with a long list of recommendations including manpower training, industrial support and facilities, trade and industrial investment promotions, and so forth.<sup>72</sup> Despite the slow action on these recommendations, the government has taken a more active role in the improvement of industrial support facilities and has called for further close monitoring of policy. Hence, it is generally considered that the 1979 report of the Committee has been a significant landmark in Hong Kong's economic, industrial and technological development.<sup>73</sup> As Sung remarks, the post-ACD era is characterized by technology-intensive development and more active government participation. He listed out the specific actions taken by the government, including the expansion of the Hong Kong Productivity Centre to promote industrial support facilities; the development of R & D services and a technology transfer service; the establishment of a government laboratory accreditation system to offer quality certification services; and the setting up of government commissioned studies on technology to be carried out by the Universities, the Polytechnic and the Hong Kong Productivity Centre.<sup>74</sup> In addition, the Industrial Development Board was established in 1983 which is assisted by three committees. Of these committees, the Science and Technology Support Committee provides advice on technical and scientific issues relating to industry including the provision of technical information for industry.<sup>75</sup>

With government support, industries in Hong Kong are taking vigorous mea-

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<sup>71</sup> Sit, "Hong Kong Industries", p. 273.

<sup>72</sup> Ho, *op. cit.*, p. 191.

<sup>73</sup> *Ibid.*, p. 192 and Yin Ruelin, "A Comparative Study of the Industrial Policies of Asia's Big Four" (in Chinese), *Hong Kong Economic Journal Monthly*, (75), Jun 1983, 58.

<sup>74</sup> Sung, *op. cit.*, pp. 406-407.

<sup>75</sup> *Hong Kong 1985: A Review of 1984*, p. 72

asures to upgrade their technological level and Hong Kong industries are now in transition to the "technology-intensive" level. For example, in the electronics industry, some firms are already designing their own products, no longer relying on assembling parts produced elsewhere.<sup>76</sup> Technology transfer attracts much attention and Hong Kong is eager to receive the latest technologies, even heavy industrial technology.<sup>77</sup> Computers are welcomed in Hong Kong. The United Nations figures, released early in 1981, showed that Hong Kong was among the top importers of computers and office equipment outside the West. In 1977, Hong Kong imported US\$110.4 million worth of equipment in these categories, making it the only Asian country apart from Japan that exceeded the US\$100 million mark.<sup>78</sup>

In conclusion, it is apparent that Japan has achieved extraordinary industrial and technological development in the modern period. Singapore, although much smaller than Japan, has made substantial and successful efforts to develop high technology. In both countries, the governments have actively supported the promotion of high technology. Both countries have established their own Science Parks and have placed strong emphasis on R & D activities. Hong Kong seems to suffer from a governmental *laissez faire* policy towards technological development, especially when compared with the other members of Asia's Big Four. However, in respect of its economic prosperity and industrial development, Hong Kong is a rare case among colonies. An acute awareness of the importance of upgrading technology level is widespread among the public especially among the industrialists and the professionals. Hence, despite all the difficulties of technological development, Hong Kong is making good progress towards the adoption of high technology. Although developing in somewhat different ways, technology certainly is of enormous significance for all three societies.

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<sup>76</sup> Zhu Yixin, "Hong Kong is at the Start of 'Industrial Revolution'" (in Chinese), *The Economy Weekly*, (152), 18 Jun 1984, 8.

<sup>77</sup> "Transfer of Technology from Japan to Hong Kong", *Hong Kong Productivity News*, 12(11), Jul 1979, 7.

<sup>78</sup> Euan Barty, "No. 1 after Japan: But Singapore is Moving to Centre Stage", *South China Morning Post Review* 1981, Jan 1981, 79.

With growing attention given to the development of science and technology, many societies today also give increasing attention to developing science and technology education. The growing emphasis on science and technology education is pointed out by UNESCO. Referring to the Asian societies, it pointed out in 1969 that "science education occupied an important place in the economic development and manpower requirements of the Asian countries. Consequently, programmes designed to improve the quality of science education have been launched in all countries of the region."<sup>79</sup> In 1977, when referring to the same issue again, it came to the same conclusion:

Science education continues to be a major concern in almost all the Member States, and high priority has been accorded to its expansion in the belief that this investment would yield dividends in the national development programmes. Increasingly, recognition is gaining ground that special attention needs to be given to science not only as a school subject but also for its role in all spheres of everyday life, and that it must be an integral part of everyone's basic education.<sup>80</sup>

Turning to technical education, UNESCO also observed that the 1960s was marked by a rapid introduction of technical and vocational education, often on a "crash" basis, in an attempt to meet urgent and immediate social and economic needs.<sup>81</sup>

This trend of growing emphasis of science and technology education also applies to Japan, Singapore and Hong Kong. None of the three societies supposes that technological development can either be achieved or sustained without a parallel development in education. The two are seen as inseparable. The development of education will, therefore, be discussed in the next chapter.

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<sup>79</sup> "Science Education in the Asian Region", *Bulletin of the Unesco Regional Office for Education in Asia*, 4(1), Sept 1969, 1.

<sup>80</sup> "Science Education in the Asian Region", *Bulletin of the Unesco Regional Office for Education in Asia*, (18), Jun 1977, I.

<sup>81</sup> "Technical and Vocational Education in the Region", *Bulletin of the Unesco Regional Office for Education in Asian and Oceania*, (21), Jun 1980, i.

**CHAPTER FIVE**  
**SCIENCE AND TECHNOLOGY EDUCATION:**  
**JAPAN, SINGAPORE AND HONG KONG**

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**A. Calling for Science and Technology Education: Japan**

Education, as a significant social activity, always reflects a society's orientations, and the emphasis on the development of science and technology in the three societies is also reflected in education. In Japan, the Education Order of 1872, based on Western models, called for the expansion of education for the general public and the introduction on a large scale of the advanced learning and technology of the West. However, the proposed content of education was not effectively implemented due to the limitations of the economic and financial situation of the time.<sup>1</sup> Technology education was again emphasized at the turn of the twentieth century for industrialization and for military purposes, but it was not much stressed during the period of American occupation.<sup>2</sup> However with the end of the occupation, the need for technology education was widely recognized. The authorities saw that Japan had to survive on industrial development, and consequently the Industrial Education Promotion Law was passed in June 1951. The Law stated clearly the significance of industrial education and vocational education for the development of the country:

(As) industrial education is the basis of the development of the industry and economy of our country,... this law ... aims at promoting vocational

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<sup>1</sup> Masunori Hiratsuka et al., "Modernization of Education in Japan", *Research Bulletin of the National Institute for Educational Research*, (17), Oct 1978, 3.

<sup>2</sup> Hokichi Nakagawa, "One Hundred Years of Elementary School Science in Japan", *Education in Japan*, 3, 1968, 53 and Kobayashi, *Society, Schools and Progress in Japan*, p. 90.

education in order to nurse a just and proper belief among the people toward labour, give them practical knowledge concerning industry, and develop their ability to design and create, so that they can contribute to the independence of the economy of our nation.<sup>3</sup>

In 1952, the Japanese Federation of Employers' Associations (*Nikkei-ren*) published its first public document on education policy, "Demand for Re-examining the New Education System", which called for the diversification of high school curricula by introducing more vocational courses and a higher degree of professionalization at the university level of education in accordance with the needs of industry. In 1953, the Science Education Promotion Law was promulgated with the intention of promoting science teaching in primary, middle, and high schools.<sup>4</sup>

In 1954, the Ministry of Education initiated a three year survey of the supply-demand problem of university graduates. The final report, published in 1957, forecast a serious over-supply of law and liberal arts graduates and a shortage of graduates in natural science and engineering. Hence, it called for an adjustment of the education programme to correct this imbalance.<sup>5</sup>

*Nikkei-ren* issued its second public statement on education in 1956, called "Opinion on Technical Education to Meet the Needs of the New Era". It strongly criticized the new education system which paid little attention to the importance of technology education and the university tradition which placed most emphasis on law and liberal arts. Once again, it urged the significance of technology education:

Unless plans to foster technicians and skilled workers parallel to the epochal growth of the Japanese economy are mapped out in order to ensure the enhancement of industrial technology, Japan's science and technology will certainly lag behind the constantly rising standards of the world and the nation will turn out a loser in international competition, putting the next

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<sup>3</sup> Cited by Kobayashi, *op. cit.*

<sup>4</sup> *Ibid.*, pp. 90-91.

<sup>5</sup> Makoto Aso and Ikuo Amano, *Education and Japan's Modernization* (Tokyo: The Japan Times, 1983), p. 79.

generation of the Japanese people at a great disadvantage.<sup>6</sup>

It further suggested the setting up of a plan comparable to the training schemes of the U.K., the U.S.S.R. and the U.S.A. for promoting science and technology education from primary to higher education levels.<sup>7</sup> In response, the Ministry of Education revised the school curriculum in 1958, devoting more time to science and mathematics and upgrading the contents of these subjects. In 1962, it established a new system of higher technical colleges, and assigned a substantial proportion of its new programmes for secondary schools and universities for the improvement of facilities for science and technology courses.<sup>8</sup>

In 1957, the Economic Planning Agency put forward a New Long Range Economic Plan, giving guidelines for economic development for a five-year period for high-rate growth. It projected that some 27,500 science and technology graduates would be needed by 1962, thus it became the first government economic plan in which special attention was given to education as a necessary prerequisite for economic growth. In response to the plan, the Ministry of Education in the same year, as recommended by its Central Council for Education, formulated a five-year plan for expanding the number of science and technology graduates by 8,000 to meet the estimated shortage by the end of the five-year period started in 1957.<sup>9</sup>

With increasing stress on technological innovation and the introduction of new concepts such as “economics of education” and “manpower theory”, how education should cater for “manpower needs” became one of the priorities considered in Japan’s education policy throughout the 1960s.<sup>10</sup>

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<sup>6</sup> Cited by *ibid.*

<sup>7</sup> Kobayashi, *op. cit.*, p. 91.

<sup>8</sup> William K. Cummings, *Education and Equality in Japan* (Princeton, New Jersey: Princeton University Press, 1980), pp. 59-60.

<sup>9</sup> *Ibid.*, p. 93.

<sup>10</sup> Aso and Amano, *op. cit.*, pp. 80-81.



In 1960, the government launched a famous National Income Doubling Plan which included an educational plan as an integral part. In regard to the swift progress of science and technology, the sophistication of the industrial structure and the prospective trends of the labour force, it considered that the development of human abilities, involving education, training and research, was of paramount significance. Hence, "improving human capabilities and encouraging education in science and technology" became one of the five planning objectives. Moreover, the sub-committee on education and training, in planning to meet the needs for the next ten years, gave priority to science and technology education, in the conviction that the creation of a large number of scientists and engineers of high quality would boost the scientific and economic development of the country. The Ministry of Education in 1963 referred the matter to the Central Council for Education.<sup>11</sup>

In November 1960, the Prime Minister's Office submitted a report titled "Science and Technology after Ten Years". It recommended that investment in research and development should increase from 1 per cent of the national income in 1958 to 2 per cent in 1970, scientific and technological information systems should be expanded, and that the training of scientific and technical personnel should be improved both quantitatively and qualitatively. The recommendations were put into effect by the Ministry of Education in its 1961 plan to increase the number of places in science and technology faculties from the then existing 28,000 to 44,000 in seven years. Moreover, nineteen technical colleges were established in 1962.<sup>12</sup>

In 1962, the Ministry of Education also issued a White Paper on Education, called "Japan's Growth and Education". The White Paper reiterated the new theory of economics of education that scientific creativity, skills and other qualitative factors in the labour force contribute to economic growth. Canada, West Germany, Israel, the U.S.S.R. and the U.S.A. were regarded as countries that had orientated education towards technological progress and economic development and it was

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<sup>11</sup> *Ibid.* and Kobayashi, *op. cit.*, p. 93.

<sup>12</sup> Kobayashi, *op. cit.*, pp. 93-94.

held that Japan should learn from these countries. Hence, it recommended that upper secondary education should be extended to all young people from 15 to 17 years of age; an extension of higher education in response to progress in science and technology; and the promotion of science and technology education, including the training of competent researchers in the fields of basic, developmental and applied research, the training of large numbers of competent engineers and technicians, the raising of the standards of basic academic achievement in primary and secondary education (particularly in science and mathematics), the expansion of technical courses in upper secondary education, and the co-ordination and consolidation of the entire system of scientific research.<sup>13</sup>

In 1963, the Economic Council published a report known as "Objectives and Measures for Developing Human Capabilities". It advocated a widely diversified education system, according to which the curricula of high schools should diversify into general and vocational education, the curricula of technical high schools should be expanded and improved, higher education should be improved for training leaders and professionals for an industrial society, and programmes for science and technology education should be promoted. The Central Council for Education's report of 1966, "On the Expansion and Development of Upper Secondary Education", also expressed the need for diversification of secondary education, which had a significant effect on technology education at the upper secondary level.<sup>14</sup>

In the *Economic and Social Development Plan 1967-1971*, published by the Economic Planning Agency in 1967, the government reaffirmed its policies of taking the initiative to promote large scale research such as the utilization of atomic energy and super-computers, stimulating research investment in the private sector and increasing the level of managerial ability in research and development. To realize these goals, manpower development was once again regarded as a prerequisite.

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<sup>13</sup> Japan. Ministry of Education, *Japan's Growth and Education: Educational Development in Relation to Socio-economic Growth* (The 1960 White Paper on Education), trans. Mino Uchida et al. (Tokyo: Ministry of Education, 1963), pp. 1-8 & 136-137.

<sup>14</sup> Kobayashi, *op. cit.*, pp. 93-95.

Hence, the plan called for the setting up of long-term policies for the establishment of vocational education centres, diversification of upper-secondary education for teaching general culture, training specialist workers and higher-level scientists and researchers, the expansion of five-year technical colleges, and the establishment of a qualifying examination system and a skill-appraising system.<sup>15</sup>

Entering the seventies, the Economic Planning Agency in 1970 published the *New Economic and Social Development Plan 1970-1975*. Whilst the earlier report had continued the traditional pre-occupation of economic planners with education for science and technology, this report extended the interest further and considered education as a foundation for the balanced development of economics and society. Its suggestions included the renovation of the industrial structure and the establishment of appropriate foundations for development as the essential policies to be adopted for the next five years. The foundations for development were the promotion of technology, the promotion of education, the development of manpower, the promotion of the "information society", and so forth. Once again, science and technology education received first priority both in and out of the school system. The Agency recommended the expansion and improvement of teaching of science and engineering in higher education improving the capability for technological innovation in the country.<sup>16</sup>

In the eighties, the Provisional Council on Education, established in 1984 by the government, submitted two educational reports, the first in 1985 and the second in 1986, reviewing the current problems of education and recommending measures for improvement. In its analysis of the current educational problems, the first report pointed out that while much attention had been given to research in natural science, research in other disciplines had been relatively neglected.<sup>17</sup> Though aware

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<sup>15</sup> Japan. Economic Planning Agency, *Economic and Social Development Plan 1967-1971* (Tokyo: Ministry of Education, 1967), pp. 111-115.

<sup>16</sup> Japan Economic and Planning Agency, *New Economic and Social Development Plan 1970-1975* (Tokyo: Ministry of Education, 1970), pp. 64-85. See also Kobayashi, *op. cit.*, pp. 105-106.

<sup>17</sup> Provisional Council on Educational Reform, *First Report on Educational Reform* (Tokyo: the

of the problems incurred by the emphasis on science and technology education, the second report, when recommending the future orientation of education, proposed the reform of higher education and the promotion of scientific research. It suggested that the curricula in junior colleges should be diversified and curricula in technical colleges should be widened. Moreover, basic research should be promoted in universities; the organization and activities of research institutes affiliated with universities, inter-university research institutes and the like should be improved; post-doctoral fellowship programmes should be expanded for training young researchers; scientific information systems should be developed; government funds for scientific research should be increased, and scientific research in the most advanced areas should be promoted.<sup>18</sup>

From these instances, it can be clearly seen that the concept of manpower investment in education has been accepted by the government for the promotion of science and technology and for the economic growth of the country.

Some international comparisons may illustrate how successfully scientific and technical education has been emphasized in Japan. In an international comparison of educational achievement of the 10 year olds and the 14 year olds in science conducted by the International Association for the Evaluation of Educational Achievement (IEA) in 1969, Japanese pupils of both age groups obtained the highest scores - for the 10-year-old group, Japan's average score was 21.7 whilst Sweden's was 18.3, Belgium's was 17.9 and the U.S.A's was 17.7; for the 14-year-old group, Japan's was 31.2 whilst Hungary's was 29.1 and West Germany's was 23.7 (see Table 5). In respect of mathematical attainments, the IEA conducted tests for secondary school pupils of the 13-14 age group of a dozen countries in 1964 and 1981. At both dates, the performance of Japanese pupils was also well ahead of almost all other countries<sup>19</sup> Another recent survey conducted by Texas educators found that Japanese

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Council, 1985), p. 37.

<sup>18</sup> National Council on Educational Reform, *Summary of Second Report on Educational Reform* (Tokyo: The Council, 1986), pp. 7-8 & 27-30.

<sup>19</sup> S. J. Prais, "Educating for Productivity: Comparisons of Japanese and English Schooling and

sixth-graders scored an average of 50 points in a mathematics examination followed by Swedish, Australian, English, Canadian, French and the U.S. pupils; the U.S. pupils scored 25.3 points. In science, Swedish pupils were top, followed by English, Canadian, Australian, Japanese and U.S. pupils.<sup>20</sup>

## **B. Science and Technology Education in Japan**

The above figures indicate the success of Japan's emphasis on science education, hence, how Japan promotes science and technology education is worth examining. Science and technology education in Japan is provided by two sets of institutions. On the one hand, schools, colleges, technical colleges and universities provide general education and the education of technicians and technical assistants. On the other hand, firms in industry and institutions other than schools concentrate on training in operational specifics. The main objectives of science education in primary and secondary schools in Japan are:

1. to increase pupil's interest in materials and the phenomena of nature and to develop the inclination to pursue the truth,
2. to cultivate the ability to think and deal with problems that arise in the physical environment logically, on the basis of facts, and to develop skills for handling the machines and tools necessary for the pursuit of experiments and observations,
3. to deepen understanding of the facts and principles of natural sciences which are the basis of life and industry, to develop the ability to use such facts and principles, and to foster creativity, and
4. to enable pupils to recognize the relationship between nature and human life, and to develop the interest of the pupils in the conservation and utilization of nature.<sup>21</sup>

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Vocational Preparation", *Compare*, 16(2), 1986, 124.

<sup>20</sup> David Lammers, "Science in the Classroom", *Far Eastern Economic Review*, 14 Jun 1984, 67.

<sup>21</sup> *Educational Standards in Japan* (The 1964 White Paper on Education) (Tokyo: Ministry of Education, 1965), p. 53.

At the primary level, pupils are taught "Living Things and their Environment", "Matter and Energy" and "The Earth and the Universe". The material is arranged in such a way as to cover the study of all basic scientific subjects. At the lower-secondary level, science consists of two integrated areas of study. One area is covered with the physical sciences and the other with the biological sciences (biology and earth science). Technical and vocational education is offered at this level. All pupils are required to take either industrial arts or home-making. Those who are preparing to work in practical occupations may choose to take other subjects including woodwork, metal work, machine engineering, electrical engineering and horticulture. They learn these subjects two or three hours a week, to acquire the essential knowledge and skills necessary either for vocational employment or for home-making.<sup>22</sup>

At the upper-secondary level, science teaching aims at increasing pupils' interest in the phenomena of nature, developing scientific ways of thinking, stimulating creativity, and helping them acquire the enquiry approach. At the stage of preparation for the all-important university-entrance examinations, all pupils must take seven hours a week of mathematics, including calculus and statistics, and an equal number of science hours, in addition to Japanese language, social studies, health and physical education. Students in the industrial course must study science I and science II (6 credits) or science I plus the following subjects: physics, chemistry, biology and earth science (each of which comprises 4 credits), and obtain 6 or more credits. All the above science subjects are divided into two levels, catering for pupils of different abilities. In addition, there is an intensive mathematics-and-science course which has four science subjects: physics, chemistry, biology and earth science. Students are required to earn 19 or more credits in this course.<sup>23</sup>

To prepare middle-level industrial workers, vocational education is designed to

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<sup>22</sup> *Ibid.*, p. 55 and "Science Education in the Asian Region", *Bulletin of the Unesco Regional Office for Education in Asia*, (18), 1977, p. 62.

<sup>23</sup> Lammers, *op. cit.* and "Science Education in the Asian Region", p. 63.

provide pupils with the fundamental knowledge and skills which are directly related to the relevant occupations, as well as to provide direct occupational training and foster creative ability. Industrial courses include the study of machinery, electricity, industrial chemistry, architecture, civil engineering, and so forth. To develop industrial engineering, the school curriculum today also covers subjects such as industrial metrology, electronics, automatic control, chemical engineering, and a general study of nuclear engineering. Experiments and practical exercises are emphasized in these courses.<sup>24</sup>

There are three main types of institutions providing technical training. Vocational upper-secondary schools provide three-year courses for 15-18 year olds. Technical colleges provide five-year courses for 16-20 year olds aiming at higher levels. Special training schools provide specialized vocational courses lasting a year or longer, intended mainly for those who have completed general upper-secondary school. Moreover, there are also other training institutes offering shorter specialized qualifications and retraining.<sup>25</sup> The First Report of the Provisional Council on Educational Reform proposed that technical schools should provide six-year courses for the 12-16 year olds, combining the present lower- and upper-secondary schools; their object would be to permit technical education to begin at an earlier age, and to provide greater continuity of instruction.<sup>26</sup>

Technical colleges admit students who have completed lower-secondary education. They usually offer several courses in engineering and merchant marine studies, including mechanical engineering, chemical engineering and civil engineering. They mainly produce middle-rank technicians. Special training schools give students instruction for at least 800 hours a year. Their courses can be classified into three categories: upper-secondary courses admitting lower secondary school leavers, ad-

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<sup>24</sup> Hideo Ohashi, "Evaluating Curriculum Change in Japan" in Philip Adey, ed., *Innovation in Science Education* (London: British Council, 1980), p. 60; *Educational Standards in Japan*, pp. 55-56; and "Science Education in the Asian Region", pp. 67.

<sup>25</sup> Prais, *op. cit.*, p. 132.

<sup>26</sup> Provisional Council on Educational Reform, *op. cit.*, pp. 56-57.

vanced courses admitting upper-secondary school leavers, and other courses. Of the three, vocational upper-secondary schools are the most important in providing technical education for pupils of upper-secondary level. They prepare for a variety of skilled jobs in industry, intermediate between the level of operator and that of engineer or manager. General education and the theoretical basis of practical applications are emphasized in these vocational schools, and a close relationship between the science curriculum and the technology curriculum has been established. Generally speaking, pupils are taught general subjects for half of the school day, and the other half of the day is devoted to vocational subjects. For those on industrial courses, more than half of the total time devoted to vocational subjects is required to be spent on experimental and practical work. Up to 70 per cent of time can be spent working in industry. The vocational schools are highly specialized according to subjects, and can be further classified into technical, commercial, agricultural, and health schools. In the technical schools, machinery, electricity, electronics, architecture, civil engineering, and industrial chemistry are the most important specializations. Of these, machinery schools and electricity schools cater for about half of all technical school pupils. Before completing a course at these vocational schools, the pupils may take highly specific industrially-recognized trade tests such as: Registered Boiler Technician, Gas Welding Technician, Senior Electric Technician (Third Class), Bookkeeping Licence (First to Third Class), Licensed Information Processing Technician (Second Category). In general, these graduates obtain standards close to the British technician level. But the Japanese system produces about ten to twenty times as many graduates at technician level as the British system.<sup>27</sup>

There has been enormous growth in the numbers receiving technical education in the last two decades. In 1961 there were only 9 special training schools with 799 pupils; and in 1962, there were only 19 technical colleges with an enrolment of 3,375. However, in 1984, the number of special training schools rose to about 3,000

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<sup>27</sup> Shigeru Makino, "Japan's Education System and Its Social Implications", *Japan Education Journal*, (27), 1986, p. 5 and Prais, *op. cit.*, pp. 134-137.



and there were about 800 schools offering some 2,400 vocational upper-secondary courses. Technical colleges totalled 62 in 1981. In 1985, 404,000 pupils graduated from vocational upper-secondary schools. In 1984, 248,000 graduated from special training schools, and 8,000 from technical colleges.

At the university level, in 1981, new graduates in science and engineering accounted for 22.5 per cent of the total graduates, far less than those in social sciences who comprised 40.5 per cent. However, at the masters level, the proportion of graduates specializing in science and engineering reached 52 per cent (science graduates comprised 10.5 per cent and engineering graduates 41.5 per cent), but graduates in social sciences only comprised 10.8 per cent. At the doctoral level, science and engineering graduates accounted for 27.1 per cent (14.2 per cent for science and 12.9 per cent for engineering), whereas graduates in social sciences comprised 13.3 per cent.<sup>28</sup> T. Tsurutani further points out that in a recent year, over 96 per cent of a total of 4,352 doctoral degrees awarded were in natural sciences, but less than 2 per cent were in social sciences, despite the fact that some 15 per cent of the entire enrolment was in social sciences.<sup>29</sup> These figures suggest that while undergraduates who specialize in science and technology do not constitute a high proportion in Japan, the research force in science and technology is strong.

It should be noted that although science and engineering graduates do not comprise a high proportion at the undergraduate level, there is a strong mass workforce who are trained at the intermediate level. And the number of these graduates should not be overlooked. S. J. Prais points out that science and engineering graduates in 1982 totalled about 77,000; compared with 35,000 in Britain in 1983. Within these totals, engineers comprised the great majority in Japan (some 65,000). In Britain

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<sup>28</sup> *Ibid.* and *Statistical Abstract of Education, 1981 Science and Culture*, 1981 edition (Tokyo: Research and Statistics Division, Minister's Secretariat and Ministry of Education, Science and Culture, 1981), pp. 72-74.

<sup>29</sup> In contrast, some 13 per cent of the annual doctoral degrees awarded in the U.S. are in social sciences and 38 per cent in natural sciences. See Taketsugu Tsurutani, "Underdevelopment of Social Sciences in Japan: Causes, Consequences, and Remedies", *Social Science Quarterly*, 66(4), 809.

engineers have less than half of the total (14,000). Hence, Japan has over twice as many engineers graduated per head of population as the U.K.<sup>30</sup> Even in comparison with the U.S.A., the population of the Japanese engineering graduates is substantial. David Lammers points out that Japanese universities turn out nearly as many engineering graduates every year as the larger U.S. university system, with more electrical engineers.<sup>31</sup> If the population of undergraduates specializing in science and engineering is large in comparison with the U.K. and the U.S.A., the relatively higher proportion of science and engineering graduates at the postgraduate level suggests the real strength of research capabilities in science and technology in Japan. Hence Tsurutani asserts that emphasis on the development of science and technology should be a real representation of the educational scene in Japan. Tsurutani comments,

Japanese education and training in the natural sciences are clearly superior, a fact that the nation takes pride in and the world recognizes with grudging admiration. In sharp contrast, however, the social sciences are quite underdeveloped, a fact with which the nation seems unaccountably unconcerned and of which the world is largely unaware...<sup>32</sup>

Not only schools and universities but also industrial firms play a significant role in the provision of scientific and technical education. Japanese firms always look for young people of high general capabilities and provide further on-the-job training for their specific needs. Hence training becomes a regular feature of industrial life in Japan, even after qualification.<sup>33</sup> Generally speaking, firms invest about 5 per cent of their annual sales turnover on training staff. The practice may be a result of lifelong employment, as investment on further training brings long-term benefits of the firms. On-the-job training is not limited to induction; retraining and upgrading of skills are seen as no less essential. Industrial training has been systematized in the last two decades. The Industrial and Vocational Training Association was

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<sup>30</sup> Prais, *op. cit.*, p. 123.

<sup>31</sup> Lammers, *op. cit.*

<sup>32</sup> For example, social scientists constitute well below 10 per cent of higher education instructional personnel in Japan. See Tsurutani, *op. cit.*, p. 805 & 809.

<sup>33</sup> Smith, *op. cit.*, p. 16. See also Vogel, *Japan as Number One*.

established to provide systematic training and developmental assistance to business and industry, in co-operation with such organizations as American Management Association, American Society of Training Directors, International Vocational Training Information and Research Centre. There are also other organizations providing other kinds of systematic training. For example, Japan Productivity Centre conducts research and study into productivity and senior management education, the Institute of Business Administration and Management conducts seminars on recent development and provides one or two year courses for individual managers, Japan Management Association holds many seminars in various fields, Nippon Office Management Association offers training in office management such as punch card systems and systems engineering courses, Japan Management School offers management training, the Union of Japanese Scientists and Engineers Inc. provides training of engineers and technicians, Japanese Standards Association conducts quality control training, Sales Promotion Bureau provides marketing and sales training, and so forth.<sup>34</sup> It should be noted that the Japanese industrial firms not only provide training for upgrading staff, but they play an important role in research and development as well. In the early 1980s, over 60 per cent of national R & D expenditure was undertaken by industry, and the proportion is growing each year.<sup>35</sup>

The joint effort of the school system and industry in providing science and technology education partly explains the remarkable success of Japan in its development of science and technology in this modern age.

### **C. Calling for Science and Technology Education: Singapore**

Science and technology education is emphasized not only in Japan but also in Singapore. On many occasions when talking about educational policy of the

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<sup>34</sup> Jitsuo Tawara, "Education and Training: the Background in Japan" in Joseph A. Lauwerys and David G. Scanlon, eds., *Education Within Industry (The World Year Book of Education 1968)* (London: Evans Brothers, 1968), pp. 196-197.

<sup>35</sup> Smith, *op. cit.*, p. 13.

country, Lee Kuan Yew has expressed the need to promote science and technology education and to adopt the manpower investment theory in education. On the eve of the 1966 National Day, Lee said:

From now onwards, we must concentrate our expenditure on the areas which will help directly to increase productivity and accelerate economic growth. For instance, take education, expenditure on this is a necessity. In a highly urbanized society, our future lies in a well-educated population, trained in the many disciplines and techniques of a modern industrial society.<sup>36</sup>

In his address to the students of the Singapore Polytechnic in 1972, Lee reiterated the importance of promoting science and technology education in Singapore:

And for us the most important single thing is, of course, the development of our human resources, exploiting our strategic location which makes possible certain industries.... Well, for the time being, the government has decided that probably it would be more sensible for Singapore to produce more technicians than engineers.<sup>37</sup>

In July 1974, in his speech at the 23rd World Assembly of the World Confederation of Organizations of the Teaching Profession, Lee once again assessed the significant role education plays helping Singapore face the accelerating speed of technological change which continues to have a profound effect on the society. "A developing country aspiring to join the ranks of the developed," Lee said, "must educate its total population. There must be universal education to ensure a more or less completely literate work force, easily trainable to fulfil all the multi-fold jobs of an industrial society."<sup>38</sup> On 23rd December 1978, Lee delivered a speech on "Higher Education and Singapore's Future" at the Political Association of the University of Singapore. He praised Japan for its high percentage of young people receiving higher education and also the high percentage of people receiving technical educa-

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<sup>36</sup> Collected in Douglas F. L. A. Koh, ed., *Excerpts of Speech by Lee Kuan Yew on Singapore, 1959-1979* (Singapore: University of Singapore Library, 1976), p. 55.

<sup>37</sup> Cited by Alex Josey, *Lee Kuan Yew*, Vol. 2 (Singapore: Times Books International, 1980), p. 60.

<sup>38</sup> *Ibid.*, p. 205.

tion in the higher education sector. And he was pleased to see that Singapore was following the same route in its emphasis on technical education.<sup>39</sup>

The Minister of Education, Ong Pang Boon's view of education was in line with Lee's. He also emphasized the significance of manpower investment in Singapore. For example, on one occasion, he stressed that the development of science and technology education was essential to facilitate Singapore's prosperity in this technological age:

Singapore's national wealth lies in our human resources, and our human potential must, therefore, be developed to the fullest possible extent. An educated and an enlightened population is our guarantee for a prosperous future. Vast investments continue to be made in the education and training of our youth. In this technological age, a sound educational base has to be laid. The learning of modern skills becomes more dependent on an adequate general educational background, rooted in Language, Science and Mathematics.<sup>40</sup>

At a Conference on Technical Education at Huddersfield in 1966 and at the Fourth Commonwealth Education Conference at Lagos in 1968, the representatives of the Singapore Ministry of Education made the following points:

1. Educational planning must accompany economic planning, and the provision of technical education and training must be seen as an essential element in the achievement of any national economic plan.
2. The system of technical education must be regarded as an integral part of the general system of education. What is done in other parts of the enterprise of education directly affects the efficiency of technical education.
3. It is important that commerce and industry should be associated with the planning and training of technicians.
4. Girls no less than boys should be actively encouraged to undertake technical training.<sup>41</sup>

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<sup>39</sup> *Ibid.*, p. 479.

<sup>40</sup> Cited by Doraisamy, ed., *op. cit.*, p. 80.

<sup>41</sup> Cited by *ibid.*, p. 131.

Calls for promoting science and technology education received much attention in the period following the achievement of Singapore's independence. This was certainly due to the conviction that Singapore had industrialize in order to survive.<sup>42</sup> When portraying the "the new Singaporeans", H. D. Chiang put that the new generation should be a generation educated in mathematics, science and technology. "The new Singaporeans," Chiang said, " will have had a great deal of science and mathematics at schools... For Singaporeans to benefit from the government's industrialization policy they needed technical training and science education."<sup>43</sup>

The PAP government took office in 1959 and made it clear that its educational policy, as published in the 1959 Annual Report of the Ministry of Education, was designed to meet the country's political and social needs. With this objective in the formulation of the national education policy, "emphasis on science and technology education" became a significant part of the tripartite educational policy.<sup>44</sup> The Report states:

The third base of the government's education policy is designed to equip the youth of the State with requisite skills, aptitudes and attitudes for employment in industry. The economy of the State can no longer be sustained by entrepot trade alone. In the re-orientation of the economic policy of the State, industrialization is vital.<sup>45</sup>

Hence, from the beginning, the need to emphasize mathematics, science and technology education was made clear by the government. In 1960, a team was sent to Israel to study the system of vocational and technical education in that country.<sup>46</sup> In January 1961, a Commission of Inquiry into Vocational and Technical

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<sup>42</sup> Before Singapore's independence, "technical education had not been systematized, but it can hardly be said to be altogether non-existent." See D. D. Chelliah, *A History of the Educational Policy of the Straits Settlements from 1880-1925*, Ph.D. Thesis, University of London, (1940), p. 295ff. For the slow development of technical education in the colonial period, see also H. E. Wilson, *Social Engineering in Singapore* (Singapore: Singapore University Press, 1978), pp. 176-184.

<sup>43</sup> Chiang Hai Ding, "The New Singaporeans" in *Towards Tomorrow: Essays on Development and Social Transformation in Singapore*, p. 14.

<sup>44</sup> See Section B of Chapter Three.

<sup>45</sup> Singapore. Ministry of Education, *Annual Report 1959*, p. 1.

<sup>46</sup> Ruth H. K. Wong, *Educational Innovation in Singapore: Experiments and Innovations* (Paris:

Education in Singapore was appointed, entrusted with the task of enquiring into the facilities and form of instruction in all vocational, trade and technical institutions in Singapore, both governmental and non-governmental, and to recommend a comprehensive scheme to be adopted by the Ministry of Education so that vocational and technical education could be co-ordinated and systematized so as to fit in with the proposed industrialization plans of the government of Singapore.<sup>47</sup> The Report of the Commission, submitted in June 1961, suggested the restructuring of the secondary school system to offer technical education. Technical and vocational education should be provided by secondary vocational schools which would offer a two-year vocational-type course; by secondary technical schools which would provide education with a technical bias leading to post-secondary education as well as being directed to industry; by secondary commercial schools which would provide a two-year commercially biased programme after two years of general secondary education; and by vocational institutes which would provide industrial training at trade and artisan levels.<sup>48</sup> Moreover, in view of growing competition from high quality products made elsewhere that might threaten the industries of Singapore, the Commission considered that it was necessary to develop the Singapore Polytechnic into a college of advanced technology able to provide education and training to postgraduate levels in professional and technological courses.<sup>49</sup>

In 1962, another Commission of Inquiry into Education in Singapore was appointed to enquire into other aspects of education apart from vocational and technical education. Nevertheless, "emphasis on science and mathematics to meet the requirements of an industrialized society" was one of the recommendations made by the Commission.<sup>50</sup>

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The Unesco Press, 1974), p. 11.

<sup>47</sup> Chan Chieu Kiat et al., *Report of the Commission of Inquiry into Vocational and Technical Education in Singapore* (Singapore: Government Printer, 1961), p. v.

<sup>48</sup> *Ibid.*, pp. 39-43.

<sup>49</sup> *Ibid.*, p. 30.

<sup>50</sup> *Ibid.*, p. 60.

In 1963, Ngee Ann College, which was renamed Ngee Ann Technical College in 1968, was established to provide technical, domestic science and language instruction at post-secondary level to Chinese-medium secondary school-leavers. In the face of accelerating industrialization, the government set up the National Industrial Training Council in 1968 to ensure speed and co-ordination in the provision of facilities for technical education and industrial training. In the same year, the Ministry of Education was restructured into two major departments: the General Education Department and the Technical Education Department (TED), and the latter was to administer technical education and industrial training programmes. The TED increased the training capacity of the vocational institutes, which provided industry-specific training, instituted a National Trade Testing Scheme, introduced the module system of industrial training and drew up plans for the establishment of Joint Training Schools, currently run with the aid of three multi-national firms. In 1973, the TED was replaced by an autonomous Industrial Training Board (ITB), which later became the Vocational Industrial Training Board. The ITB was responsible for co-ordinating industrial training programmes, and responsibility for technical education within schools then reverted to the Ministry of Education.<sup>51</sup>

In 1969, a new common curriculum for the first two years of the secondary school course was introduced for Secondary I pupils, resulting in a four-fold increase in the number of students receiving technical education beyond the first two years of secondary education. Aptitude testing of Secondary II students was conducted for the first time in 1970 for the purpose of channelling students into academic, technical and commercial streams. And one-third of the successful candidates were supposed to be channelled into the technical stream.<sup>52</sup>

In 1976, a committee was formed to review technical education in secondary

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<sup>51</sup> Ruth, *op. cit.*, p. 12 and S. Gopinathan, "Towards a National Educational System" in Riaz Hassan, ed., *Singapore: Society in Transition*, pp. 74-75.

<sup>52</sup> Singapore Ministry of Education, *Education in Singapore*, second edition (Singapore: Educational Publications Bureau, 1972), pp. 4-5 and *One Year of Technical Education, April 1968 to March 1969* (Singapore: Technical Education Department, Ministry of Education, 1969), p. 5.



schools. The committee report, called *Shelley Report on Technical Education in Secondary School*, recommended a number of changes. One of them was that girls should be able to choose between technical workshop practice and home-economics.<sup>53</sup>

Teacher training for technical education was also emphasized. A comprehensive training scheme was introduced in 1969. Certain facilities were provided at the polytechnic and, in 1968, plans were made for the addition of a fully equipped technical wing to the Teachers' Training College.

Science and technology education is no less emphasized today. In these years of economic recession, while many Western countries are cutting educational funds, the Singapore government, still holding the belief that investment in manpower training may promote an upturn in economic prosperity, expands its higher education budgets and plans to increase the number of students to be educated both at home and abroad. The Nanyang Technological Institute, established in 1981, moved onto a brand new campus in June 1986, which had cost almost £100 million to build and equip. And Lee Kuan Yew has promised to spend another £1 billion on education, much of which is going to the polytechnics and the National University.<sup>54</sup>

#### **D. Science and Technology Education in Singapore**

In Singapore, science courses are provided at all levels of the system from primary to pre-university. The primary science course consists mainly of nature study during the first two years. Elements of the physical sciences are introduced in the third year and taught during the remaining years of the primary science course. In

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<sup>53</sup> Goh Keng Swee et al., *Report on the Ministry of Education 1978 (Goh Report)* (Singapore: Government Printer, 1979), pp. 2-3.

<sup>54</sup> John O'Leary, "Students Boom Beats the Slump in Asia", *The Times Higher Education Supplement*, 6 Jun 1986, 10.

1970, the Advisory Committee for Curriculum Development (ACCD) was set up for a full-scale systematic revision of the curriculum in all subject areas including science education. The new Primary Science Programme thus introduced places emphasis on the child-centred activity approach. Through active involvement, children learn to make observations, develop scientific concepts and acquire skills. The significance of mathematics and science at this stage is demonstrated in the Primary School Leaving Examination, where mathematics and science constitute two of the four subjects to be tested in the examinations (the other two subjects are languages). Under the 1980 New Education System, mathematics and science account for 43 per cent of the teaching hours and are taught in the English language.<sup>55</sup>

At the lower secondary level, all pupils study general science. The general science course at this level is usually studied as three separate subjects of physics, chemistry and biology in each of the two years, rather than as an integrated course. Under the common curriculum introduced in 1969, in addition to the normal school subjects, all boys and 50 per cent of the girls are required to study technical subjects such as technical drawing, metalwork, woodwork, basic electricity and home-economics (for girls). In 1970 the Lower Secondary Science (LSS) Programme was introduced. It was a two-year integrated science programme, making a significant departure from the traditional general science programme. It emphasized the understanding of basic scientific concepts in relation to the pupils' environment and their application to everyday situations, and the acquisition of rudimentary skills and their application to the learning of science. Hence, it included the study of socio-scientific issues, such as environmental problems of overcrowding, pollution, rapid industrialization, urbanization and high-rise living. Under the New Education System, mathematics, general science and technical subjects or home-economics are among the eight core subjects at this level. Mathematics, science and technical sub-

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<sup>55</sup> "National Science Programmes: Singapore", *Bulletin of the Unesco Regional Office for Education in Asia*, 4(1), Sept 1969, 103; "Science Education in Asian Countries: Singapore", *Bulletin of the Unesco Regional Office for Education in Asian*, (18), Jun 1977, 146-148; and Cowen and McLean, eds., *op. cit.*, p. 464.

jects account for 35 per cent of the school hours.<sup>56</sup>

There are industrial training courses provided by the Vocational Industrial Training Board (VITB). There are Artisan courses for the primary school leavers, and trade courses are the lower-secondary school leavers. In the first year of the two-year trade course, academic subjects such as English, mathematics and science are taught, which account for half of the first year's curriculum. These courses are meant to extend the pupils' theoretical background.<sup>57</sup>

Prior to 1970, selection and streaming took place at the end of Secondary II. Selection for the various science courses available beginning in the upper secondary level, i.e. Secondary III, was based more on ability than on choice. Two groups of ability were usually distinguished in all types of schools. The top ability group of the academic schools studying in the science stream took two science and two mathematics subjects, and those of the technical schools followed a course with an engineering bias, but they also studied two science subjects, for example, physics and chemistry or biology and physical science, and two mathematics subjects. The lower ability group in both types of school, on the other hand, took only one science subject - physical science or general science. Apart from the ordinary science courses, there are applied science courses and computer appreciation courses provided as an extra-curricular activity which help to stimulate interest and enhance pupils' ability in the subjects. Under the New Education System, mathematics becomes a compulsory subject in all streams. Whilst science is studied as a compulsory subject in the Special and Express streams, it is elective in the Normal stream. It is clear from this that throughout the last two decades, the study of science has been particularly emphasized in the curriculum of the talented pupils; the more talented they are, the more science subjects they can study.<sup>58</sup>

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<sup>56</sup> "National Science Programmes: Singapore", *op. cit.* and *Education in Singapore*, p. 22.

<sup>57</sup> "Science Education in the Asian Countries", *op. cit.*, p. 149.

<sup>58</sup> "National Science Programmes: Singapore", *op. cit.*, p. 104; "Science Education in the Asian Countries: Singapore", *op. cit.*, pp. 148-155; and Seow, Foo and Hsu, *op. cit.*, Annexes 2B & 2C.

At the pre-university level, there is a choice of subjects for GCE "A" Level examinations. Subjects available in the science stream include physics, chemistry, biology, botany, zoology, physical science, general mathematics, pure mathematics, applied mathematics. In the engineering stream, subjects available include physics, general mathematics, pure mathematics, applied mathematics, chemistry, technical drawing, and metalwork.<sup>59</sup>

The proportion of pupils following concern in technical education in Singapore is impressive. In 1977, student enrolment in technical colleges and technical and vocational institutes was 21,634, as compared to 8,830 in the universities.<sup>60</sup> Among the first year enrolment at the University of Singapore, in 1961, science students only comprised 15.4 per cent, arts students comprised 25.4 per cent, and there was no Engineering Department at that time. However, since 1969, when the Engineering Department was inaugurated, the proportion of science and engineering students among the first year students has been over 40 per cent. Science and engineering students in its intake accounted for 45.9 per cent (22.1 per cent for science students and 13.8 per cent for engineering students) in 1969. However, arts students comprised only 27 per cent. In 1979, science and engineering students comprised 41 per cent (21.5 per cent for science students and 19.5 per cent for engineering students), and arts students comprised 23 per cent. Moreover, the National University of Singapore is planning to increase the proportion of intake of science and engineering students to 47.6 per cent by 1990, whereas the proportion of arts and social sciences students by the time will be only 19.6 per cent. As in Japan, science and engineering students at the postgraduate level comprise the larger proportion. In the University, science postgraduates accounted for 33.3 per cent in 1961, and arts postgraduates accounted for 20.8 per cent. However in 1979, science and engineering postgraduates rose to 68.9 per cent (11.7 per cent for science students and 57.2 per cent for engineering students), thus they constitute the dominant research

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<sup>59</sup> "National Science Programmes: Singapore", *op. cit.* and "Science Education in the Asian Countries: Singapore", *op. cit.*

<sup>60</sup> Aline Wong, *Economic Development and Women's Place: Women in Singapore*, p. 13.

force at the University.<sup>61</sup>

The importance attached to engineering and technology in the higher education sector can further be seen in terms of expenditure. For example, in 1984/85, the development of engineering and technology in the higher education sector accounted for 39 per cent of R & D expenditure, followed closely by medical sciences, which accounted for 35 per cent.<sup>62</sup>

As in Japan, technical education in Singapore also takes place in the form of industry-based training. Under the 1976 Junior Training Scheme, young workers must be registered with the Vocational and Industrial Training Board (VITB). The VITB is responsible of the provision of public institutional training, the registration and regulation of apprenticeship training, the conduct of continuing education and other training programmes, and the testing and certification of skills. Its training programmes are geared towards Singapore's manpower projections, with emphasis on skills and vocations necessary for technological upgrading. By the end of 1982, there were 6,174 people receiving apprenticeship training. With the increase of funds for industry-based training under the Skills Development Fund (SDF) scheme, grants of up to 70 per cent may be extended to employers for developing and upgrading the skills of their workers. This policy has encouraged many employers to improve their own training centres with better training facilities and programmes. All this demonstrates the government's active concern for the promotion of science and technology education both within and without the school system.<sup>63</sup>

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<sup>61</sup> Seah Chee Meow, *Student Admission to Higher Education in Singapore* (Singapore: Regional Institute of Higher Education and Development, 1983), pp. 17-30.

<sup>62</sup> "Vital Role of R & D in Nation's Future Growth" in Moore et al., eds., *op. cit.*, p. 15.

<sup>63</sup> *Singapore 1983*, pp.196-197 and Sydall, *op. cit.*, p. 211.

## E. Calling for Science and Technology Education: Hong Kong

In a speech, the Hong Kong Governor in the seventies, Sir Murray McLhose affirmed the importance of technical education for the society's development:

Technical education is a first-class form of education in itself, and the capacity of Hong Kong to adapt to changing industrial and commercial conditions greatly depends on the programme of expansion of technical education...<sup>64</sup>

Early in 1935, The *Burney Report* on education in Hong Kong had pointed out that a demand for a comprehensive scheme for the systematic development of technical education undoubtedly existed in Hong Kong.<sup>65</sup> At that time, there existed a technical institute and a junior technical school. In 1937, the Trade School was established and in 1947 renamed the Technical College. There was growing public concern for a development of technical education to meet the industrial needs, and the expression of such concern came to a climax when the Chinese Manufacturers' Association donated one million Hong Kong dollars in 1955 to build a technical college. This served as a milestone in the development of technical education in Hong Kong and resulted in the Technical College moving to new premises in Hung Hom in 1957.<sup>66</sup>

In February 1963, R. M. Marsh and J. R. Sampson were invited from Britain to review Hong Kong's education. The *Marsh-Sampson Report* was submitted in October. It asserted that one of the aims of education in Hong Kong was "to meet the demands of an industrial economy in the technical field for technologists, technicians and craftsmen." At a time when education was still neither universal nor

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<sup>64</sup> Cited by Hong Kong. Education Department, *Technical/Vocational Education and Training in Hong Kong* (Information Sheet) (Hong Kong: The Department, 1975), p. 1.

<sup>65</sup> E. Burney, *Report on Education in Hong Kong* (London: Crown Agents for the Colonies, 1935) p. 15.

<sup>66</sup> Fung Yee Wang, "Education" in Cheng, ed., *Hong Kong in Transition*, p. 305 and "The Development of Higher Education in Hong Kong" (in Chinese) in Cheng, ed., *Studies on Higher Education in Hong Kong*, (Hong Kong: Ming Pao, 1984), p. 9.

compulsory, it recommended that the secondary grammar schools should provide a broader curriculum to include technical subjects, so that they could provide all that was needed for the future technologists and technicians and could gain the support and confidence of the public. Seeing that Hong Kong needed increasing numbers of craftsmen and manual workers just as it needed technologists and technicians, Marsh and Sampson recommended that the Technical College should develop pre-apprenticeship and artisan training courses.<sup>67</sup> As in Japan and Singapore, the concept of manpower investment was adopted in Hong Kong, as expressed in the 1966 *Interim Report of the Special Committee on Higher Education*:

...bearing in mind the inherent limitations, the manpower assessment is the first step in formulating a strategy for a national programme of developing human resources. A manpower strategy might contain programmes for the development of formal education and the development of people who are already employed...<sup>68</sup>

In 1983, the Education Branch in the Government Secretariat was renamed the Education and Manpower Branch, which clearly indicated that the government perceived education as manpower investment.<sup>69</sup> The mid-1960s was characterized by social unrest, but in 1969 the Polytechnic Planning Committee was formed to look into the development of higher vocational education in Hong Kong.<sup>70</sup>

The seventies was a decade of extraordinary development in technical education. Much of the innovative thought and implementation of changes in the 1970s was concerned with the promotion of technical education. A major concern in the early seventies was the upgrading of the Technical College to become a polytechnic. As recommended by the Polytechnic Planning Committee, the government-run Technical College was handed over to the Hong Kong Polytechnic Board and it be-

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<sup>67</sup> R. Marsh and J. R. Sampson, *Report of Education Commission (Marsh-Sampson Report)* (Hong Kong: Government Printer, 1963), pp. 106 & 116-117.

<sup>68</sup> A. Rodrigues et al., *Special Committee on Higher Education Interim Report 1966* (Hong Kong: Government Printer, 1966), p. 2.

<sup>69</sup> *Hong Kong 1984: A Review of 1983*, pp. 3 & 257.

<sup>70</sup> Fung, *op. cit.*

came an autonomous institution, known as Hong Kong Polytechnic, in 1972. In 1973, a Green Paper entitled *Report of the Board of Education on the Proposed Expansion of Secondary School Education in Hong Kong over the Next Decade* was published. It proposed that the education system should enable pupils to learn how to operate and carry on the economic functions relevant to Hong Kong and also make them well-balanced citizens. It quoted a submission from the Federation of Hong Kong Industries concerning the educational needs of the time:

In this technological age scientific knowledge and methods are applied to industry to produce goods which are competitive in price and quality and which satisfy world market demands. It is generally acknowledged that progress in the economic and social development of a country depends, particularly in the absence of other resources, on its human resources and is directly related to the level of skills and knowledge of its work force.... Hong Kong depends largely, both economically and socially, on its manufacturing industry and will do so increasingly.... Without the continuous availability of properly trained and adaptable manpower, which is already in short supply in industry, the prospects of Hong Kong being able to compete for world markets ... become more remote.<sup>71</sup>

To cater for the need of promoting technical education in secondary schools, they recommended the establishment of a Technical Teacher Training Board (under the auspices of the Board of Education) to establish standards and objectives in teacher training so that the planning of programmes and facilities might be realistically based and relevant to the changing and developing needs of industry in Hong Kong.<sup>72</sup>

In 1974, the Technical Teachers' College was established, with the Technical Teacher Department of the Morrison Hill Technical Institute as its nucleus. The College was established to meet the need to provide trained technical teachers for the secondary sector which was experiencing rapid expansion in technical education.<sup>73</sup>

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<sup>71</sup> Cited by *Green Paper: Report of the Board of Education on the Proposed Expansion of Secondary School Education in Hong Kong over the Next Decade*, pp. 2-3.

<sup>72</sup> *Ibid.*, pp. 33-34.

<sup>73</sup> Hong Kong. Education Department, *op. cit.*, p.4.



In the same year, the White Paper *Secondary Education in Hong Kong over the Next Decade* was published. It recommended that all pupils in junior secondary forms should follow the same general curriculum, but 25 to 30 per cent of the curriculum should be allocated to practical and technical subjects. In this respect, the introduction of “the practical and technical content of the common curriculum for the junior secondary course, the substantial expansion of technical institutes and the intended overall ratio of three grammar to two secondary technical schools indicate that the government attaches considerable importance to a build-up of technical education at the secondary level in line with Hong Kong’s future needs.”<sup>74</sup>

Whilst the above-mentioned Green Paper and White Paper released in the early seventies mainly focused on the development of secondary education, a White Paper devoted to education at higher level was released in 1978. The 1978 White Paper *The Development of Senior Secondary and Tertiary Education* asserted that the educational system in Hong Kong should provide adequate numbers of people to meet the needs of “the diversified, technologically-sophisticated industries” that Hong Kong hoped to attract. It affirmed that to improve the quality of education, the government intended to help schools realize more satisfactorily their prime functions, one of which was to help children acquire “a basis of mathematical, scientific and technical knowledge and skills to prepare them for the fast-changing, highly technological society in which they will live and work.” Turning to the curriculum, in line with the suggestions of the 1974 White Paper on senior secondary education over the next decade, the 1978 White Paper recommended that the curriculum of senior secondary forms should also be broadened, with greater emphasis on practical and technical subjects and the provision of improved facilities and support services. Moreover, existing secondary technical schools should evolve a curriculum that was more closely related to modern developments in technology. It considered that it was time for the Hong Kong Polytechnic to concentrate on offering programmes at higher level, hence it recommended that the technical institutes should be expanded

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<sup>74</sup> *White Paper: Secondary Education in Hong Kong over the Next Decade* (Hong Kong: Government Printer, 1974), pp. 4 & 6.

to offer ordinary technician and equivalent commercial programmes to enable the Hong Kong Polytechnic to cease to provide the lower level courses.<sup>75</sup>

To meet the pressing needs for training youngsters for the expanding industries in Hong Kong, the government has achieved a remarkable record in the promotion of technical education - it established five technical institutes within the decade, and actually four of the five were established between 1975 and 1980. The other two were set up in August 1986 and the eighth one in 1987. These institutes provide courses at craft and technician levels by full-time, block-release, part-time day release and part-time evening attendance, to allow as many people to be trained as possible.<sup>76</sup> To ensure the work force being adequately educated, the Apprenticeship Ordinance was enacted in 1976. It requires all workers between 14 and 18 years of age to receive appropriate technical education in 42 designated trades in the technical institutes<sup>77</sup>

The year 1982 saw a major advance in the promotion of technical education, with the establishment of two important bodies, namely the Vocational Training Council and the Department of Technical Education and Industrial Training. The Vocational Training Council, a statutory body established in February under the Vocational Training Council Ordinance, is to advise the Governor on policies for developing a comprehensive system of technical education and industrial training suited to the developing needs of Hong Kong. The Council will also institute, develop and operate schemes for training operatives, craftsmen, technicians and technologists to maintain and improve Hong Kong's industry, commerce and services; and will establish and administer technical institutes and industrial training centres. The Department of Technical Education and Industrial Training, established

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<sup>75</sup> *White Paper: The Development of Senior Secondary and Tertiary Education* (Hong Kong: Government Printer, 1978), pp. 3-5 & 10-12.

<sup>76</sup> *Hong Kong 1986: A Review of 1985*, p. 100-101; and *Hong Kong 1987: A Review of 1986*, p. 112.

<sup>77</sup> Zeng Lianghua, "Technical Training Must be Stressed for the Development of Industries in Hong Kong", *Economics Reporter*, (36), 1981, 18; K. W. J. Topley, *Education Department Annual Summary 1977-78* (Hong Kong: Education Department, 1978), p. 8.; and *Hong Kong 1987: A Review of 1986*, p. 113.

in April, serves as the Council's executive arm, and takes charge of the technical institutes which were previously administered by the Education Department.<sup>78</sup>

In 1982, the government established 19 training boards and six general committees, on the recommendation of the Council. The training boards are to project manpower needs and recommend measures to meet the needs. The general committees take charge of specific training activities including technical education and technologist training. Eight manpower surveys were carried out during the year, and two were specifically conducted on management and supervisory training and on technical education.<sup>79</sup> Moreover, the idea of establishing a second polytechnic was realized in this year with the appointment of the Planning Committee for the Second Polytechnic in June. And after two years of planning, the second polytechnic, the City Polytechnic of Hong Kong, opened its doors to students in October 1984.<sup>80</sup>

The report of the OECD visiting panel, the *Llewellyn Report*, which was published in the same year, asserted that in Hong Kong it was necessary to expand opportunity for study at degree level, especially degrees in technological subjects, and courses for higher technicians:

From the point of view of manpower alone, expansion of the technical institutes and sweeping improvements in teacher education would seem to us to be clear priorities.... Most likely, the plans to expand the universities and Polytechnic could be easily justified also from plausible labour need calculations.... If one looks at Hong Kong society today - its energy, its competitiveness, the value it puts upon education the degree of social mobility apparently related to education, its age structure, and its comfortable exchequer - then the social pressure for further expansion is understandable, legitimate, and has to be met in some way.... (There) is an overwhelming case for the expansion of opportunity for study at the

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<sup>78</sup> *Hong Kong 1983: A Review of 1982*, pp. 71-72 and Hong Kong. Education Department, "Education in Hong Kong: A Brief Account of the Education System with Statistical Summary" (Information Sheet) (Hong Kong: Information and Public Relations Section, 1982), p. 3.

<sup>79</sup> *Hong Kong 1983: A Review of 1982*, p. 7.

<sup>80</sup> *Address by the Governor, Sir Edward Youde, at the Opening of the Legislative Council on October 6, 1982*, p. 24 and *Hong Kong 1987: A Review of 1986*, p. 110.

degree level, with particular emphasis on degrees in technological subjects, and in courses for higher technicians.... These considerations satisfy us that a considerable and rapid expansion of degree level and higher technician education is both necessary and desirable.<sup>81</sup>

The Llewellyn Committee called for the expansion of technical education in Hong Kong. The Education Commission, which was set up as a follow-up of the suggestions of the Llewellyn Committee, also showed their concern in their 1984 report, entitled *Education Commission Report No. 1*. They proposed the establishment of an additional technical institute by 1998 and the running of "open education", as "the demand for continuing education at professional and technician level will increase as high technology makes its impact."<sup>82</sup> Moreover, the significance of technical education was also emphasized in the 1984 Hong Kong Annual Report:

...the development of Hong Kong's economy in the 1980s should not be inhibited by a shortage of high-level technological manpower; there was a need to increase the annual growth rate of the universities; training facilities must be expanded for our existing workforce to upgrade their technical skills; increasing the output of manpower at the professional and graduate level, more attention should be paid to the need for a solid infrastructure of skilled support at the technician and craftsman level....<sup>83</sup>

The late Hong Kong Governor, Sir Edward Youde endorsed the establishment of a third university in his annual policy speech in 1986. A Planning Committee for the Third University was then formed. Although planning is still in progress, the government has already announced that the third university will focus on training technicians and technologists in order to keep pace with the latest developments of science and technology in the world, and it will be named the University of Science and Technology. This is further evidence of the growing awareness of the significance of technical education in the society.<sup>84</sup>

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<sup>81</sup> Llewellyn et al., *op. cit.*, pp. 63-66.

<sup>82</sup> *Education Commission Report No. 1* (Hong Kong: Government Printer, 1984), pp. 97 & 113.

<sup>83</sup> "Education at the Crossroads", p. 5.

<sup>84</sup> See *Hong Kong News Digest* (in Chinese), 30 Mar 1986 and 18 Jan 1987.

## **F. Science and Technology Education in Hong Kong**

As in Singapore, science courses in Hong Kong are provided at all levels of the educational system from primary to pre-university. Science in the primary schools accounts for about an hour a week, whilst mathematics and art and craft account for about three hours and one and a half hours respectively. In total these courses comprise about 30 per cent of the primary curriculum. As shown from the period allocation, mathematics and practical subjects are seen as the most important after languages which in total account for seven and half hours a week, i.e. 45.4 per cent of the teaching time. Languages include courses in both Chinese and English. Moreover, mathematics and the two languages were the subjects tested in the Secondary School Entrance Examination, which was banned with the introduction of nine years of compulsory education. Singapore has retained science as one of the subjects tested in the Primary School Leaving Examination.<sup>85</sup>

At the junior secondary level, mathematics still occupies about five hours a week, but teaching hours for general science rise to 4 and those for practical subjects rise to 6. In 1973, under the endorsement of the Education Department, integrated science, which places emphasis on experiments, guided enquiry and application, was introduced into the junior secondary school curriculum. It was adopted by 20 schools in that year and is now adopted by nearly all schools. Educational visits are arranged by the Education Department for science teachers and school science newsletters published by the Department are circulated regularly to all secondary schools. As in Japan and Singapore, all pupils are required to study practical subjects which are normally two co-ordinated subjects - art and design, together with home-economics or design and technology. At this level, mathematics, science and practical subjects account for 36 per cent of the teaching hours, as compared with 35 per cent in Singapore.<sup>86</sup>

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<sup>85</sup> *Hong Kong Education System*, p. 253.

<sup>86</sup> *Ibid.*, p. 255; Gao Lingsong, "Introducing 'Integrated Science' to Hong Kong", *Dou Sao*, May 1974, pp. 45-51; C. H. Haye and Michael M. K. Leung, *Education Department Annual Summary*

At the senior secondary level, pupils are placed in the arts or the science stream. Science subjects are studied as separate subjects such as physics, chemistry and biology, each of which is taught for about two hours a week. However, an integrated syllabus for the three subjects has also been introduced and has been implemented in a number of schools. As a response to the recommendation of the 1978 White Paper on senior secondary and tertiary education to broaden the secondary school curriculum, human biology was introduced into schools in September 1982. Computer studies were also introduced into the school curriculum. These two subjects were first examined in the Hong Kong Certificate of Education Examination (HKCEE) in 1984. To promote environmental science education, the Science Subjects Section organizes a variety of projects with other educational institutions and organizations such as the University of Hong Kong, the Conservancy Association, and the Agriculture and Fisheries Department. As in Japan and Singapore, all pupils are required to study mathematics. There are mathematics and additional mathematics which account for 4 and 2 hours a week respectively, and the latter is mainly intended for those in the science stream.<sup>87</sup> Concerning technical education at this level, many schools offer subjects such as Art and design, design and technology, and home-economics which reach the level of HKCEE, they account for 2.7 hours a week, 7.3 hours a week and 2.6 hours a week respectively.<sup>88</sup>

In contrast to both Japan and Singapore, Hong Kong has secondary technical schools which cover both the junior and senior secondary levels of education. The curriculum in these schools is similar to that of the grammar schools but more emphasis is placed on teaching technical subjects. A wide range of technical subjects such as metalwork, woodwork, technical drawing, practical electricity and electronics are offered for boys and commercial subjects, home-economics and pottery for girls up to the HKCEE level. To allow pupils to pursue technical studies at a higher level, a list of "A" level subjects entitled "Engineering Science" has been developed

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1984-5 (Hong Kong: Education Department, 1985), pp. 6-7; and Topley, *op. cit.*, pp. 17-18.

<sup>87</sup> *Ibid.*, p. 256 and Haye and Leung, *op. cit.*

<sup>88</sup> *Hong Kong Education System*, p. 256.

in the eighties. Candidates with a good performance in the HKCEE may proceed to Form 6, technical institutes, the Hong Kong Polytechnic, the City Polytechnic of Hong Kong or the Hong Kong Technical Teachers' College.<sup>89</sup>

There are also prevocational schools which are government-aided schools providing students with both general education and the technical skills upon which future vocational training may be based. These schools formerly only existed at junior secondary level, but were later extended to senior secondary level. The curriculum is so designed that the majority of prevocational leavers will enter approved apprenticeship schemes linked with attendance at associated part-time day-release courses in a technical institute. Technical institutes may give credit for technical subjects which have been studied in depth in these schools, hence the shortening of the length of the technical institute course. The curriculum is made up of technical subjects and general subjects in equal proportions at the junior secondary level. At the senior secondary level, the technical content is reduced to about 30 per cent to enable these pupils to move to the academic stream if they choose to do so. Practical subjects taught include basic mechanical engineering, basic electrical engineering, automobile servicing, printing, building trades, commercial subjects and home craft. There were only 6 prevocational schools in 1975 but the number rose to 15 in 1986, and a further 9 schools of this type have been included in the School Building Programme for completion in the next five years.<sup>90</sup>

Referring to the growth of technical education in Hong Kong, Dan Waters, Assistant Director of Education of the Hong Kong government claims that "the growth in numbers of technical students, at craft and technician levels, has been quite staggering and is possibly unequalled anywhere else in the world."<sup>91</sup>

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<sup>89</sup> *Hong Kong 1987*, p. 103 and Hong Kong Education Department, *Technical/Vocational Education and Training in Hong Kong*, p. 5.

<sup>90</sup> *Hong Kong 1986: A Review of 1985*, p. 89 and Hong Kong Education Department, *op. cit.*, pp. 4-5.

<sup>91</sup> Cited by Phillip Bruce, "Technical Education Reaches the Peak in Hong Kong", *Education and Training*, 23(1), 1981, 6.

Within the decade of the seventies, the number of technical institutes grew from 1 to 5, students enrolled in the institutes increased by 130 per cent. In a single technical institute, Morrison Hill, the number of pupils enrolled in the part-time day-release courses increased twelve-fold, rising from 600 to 8,000. Enrolment in the Hong Kong Polytechnic also experienced a 114 per cent increase within the decade. In 1979, the total enrolment in the Hong Kong Polytechnic reached 25,400 as compared to a total enrolment of 12,801 in the post-secondary sector excluding the students of the Polytechnic. Hence, the polytechnic enrolment in the year accounted for two-thirds of the total enrolment at the post-secondary level.<sup>92</sup> Scientific and technical education has expanded considerably in the University of Hong Kong. In 1970, science and engineering undergraduates accounted for 35.3 per cent of the total undergraduate enrolment, but in 1984, the proportion reached 50.8 per cent. If the Chinese University of Hong Kong is taken into account as well, the proportion rose from 32.6 per cent in 1970 to 43.4 per cent in 1984.<sup>93</sup>

Outside the school system, the government has deployed a number of "Industry-wide Training Schemes" which include the establishment of eight training centres for the following industries: automobile, electrical, electronics, hotel, machine shop and metal working, plastics, printing and textiles. The tenth scheme provides post-graduate training to engineering graduates from universities and polytechnics. The Vocational Training Council set up an Engineering Graduate Training Scheme in 1983 for engineering graduates from universities and polytechnics to enable them to meet the practical training requirements of the professional Engineering Institutes. Under this scheme a graduate is granted a subsidy which is paid through his employer as part of his salary. Two statutory training authorities, the Clothing Industry Training Authority and the Construction Industry Training Authority were set up in 1975. Each of them administers two training centres financed from levies

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<sup>92</sup> Phillip Bruce, *op. cit.*; *Hong Kong 1971*, pp. 78-79; and *Hong Kong 1980*, pp. 67-68 & 259.

<sup>93</sup> The Chinese University of Hong Kong does not offer engineering courses. The 1970 figure includes architecture undergraduates and the 1984 figure includes students of computer studies. See *Hong Kong 1971*, pp. 76-77 and Hong Kong Government Industry Department, *Industrial Investment: Hong Kong* (Hong Kong: Government Printer, 1986), p. 20.



on their respective industries. The Hong Kong Productivity Centre and the Hong Kong Management Association offer a wide range of courses on various management and technical subjects, such as instrumentation for automation, robot technology, quality control and production management. Courses can be tailored to suit the requirements of individual students. There are also a number of vocational courses run by many training centres sponsored by voluntary organizations, leading to the award of various qualifications.<sup>94</sup>

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<sup>94</sup> Hong Kong Government Industry Department, *op. cit.*, p. 19.

**CHAPTER SIX**  
**PROBLEMS OF EDUCATION**  
**FOR TECHNOLOGICAL DEVELOPMENT**

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**A. Problems with Human Investment**

One of the reasons for emphasizing science and technology learning is to improve economic prosperity. This point was made clear in the discussion above, and all three societies have records of justifying science and technology education for this purpose. Developing science and technology education has been seen to be a way of improving the quality of manpower for further economic progress. In short, this is the concept of the 'investment in man' theory, according to which economists perceive education as an investment and they can make quantifiable calculations based on human investment as input and the rate of return as output.

Whilst the economics of education, or the human investment theory, received nearly universal welcome during the sixties and the seventies, this approach to education has recently been increasingly criticized. Early in the sixties, Philip Coombs and Gunnar Myrdal showed scepticism towards the concept. Myrdal pointed out that the theory is based on a number of unwarranted assumptions. First, it requires the assumption that education is wholly measurable in terms of financial expenditures. Second, it implies that prevailing attitudes and institutions, items in the levels of living other than educational facilities, are of no consequence for the problem. Third, it also implies that the effects of all other policy measures applied at the same time can be completely disregarded. Moreover, the treatment

of education in terms of investment neglects the inequality issue.<sup>1</sup>

The problem can be viewed from another perspective. "It is impossible to measure with any presently known gauge the full output and eventual impact of an educational system." Coombs remarked, "On the day he graduates, what kind of an output does he embody? The answer is that he embodies a multiplicity of outputs - represented, for instance, in the facts and concepts he has learned, the style of thinking he has acquired, and also such changes as may have occurred in his outlook, values, ambitions, and personal conduct. If one then asks how all this will affect the future life of this student, his family, and society, the difficulty is several times compounded.... A full and precise judgement on the outputs of any educational system is next to impossible."<sup>2</sup>

Mark Blaug, a pioneer of the field, in his recent writings expressed doubts about some hypotheses in the economics of education. Contrary to his early belief, in an interview, Blaug said that it is difficult to predict the development of human knowledge and it is even more difficult to predict the economic development of a society, especially in such a fast changing world today, mainly because of the complexities of the modern world and the complexities of actually implementing a manpower forecast.<sup>3</sup>

Whilst the "first-generation" economics of education believes in the assumption that education, through the provision of cognitive, technical knowledge and skills, directly enhances economic productivity,<sup>4</sup> Blaug points out that the "second-generation" casts doubts on such belief. This new generation no longer believes

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<sup>1</sup> Gunnar Myrdal, *Asian Drama: An Inquiry into the Poverty of Nations*, Vol. 3 (London: Allen Lane The Penguin Press, 1968), pp. 1546-1547. For other criticisms of the approach, see Muhammad Shamsul Huq, *Education, Manpower, and Development in South and Southeast Asia* (New York: Praeger, 1975), pp. 68-73.

<sup>2</sup> Philip H. Coombs, *The World Educational Crisis: A Systems Analysis* (New York: Oxford University Press, 1968), p. 64.

<sup>3</sup> Cheng Kai Ming, "The Economics of Education and China: An Interview with Mark Blaug", (in Chinese), *Hong Kong Economic Journal Monthly*, 9(4), 169-172.

<sup>4</sup> OECD, *Education in Modern Society* (Paris: OECD, 1985), p. 27.

that the social demand approach, or the projection of private demand, provides a sufficient basis for quantitative educational planning. This generation has likewise abandoned manpower forecast as a planning tool and the rate-of-return approach. Contrary to the belief of the first generation that educational expansion would inevitably entail greater equality, the second generation has more and more appreciated that more schooling can actually increase inequalities in income. Further, it is increasingly realized that rather than function as a means of improving productivity, schooling has actually served as a screening and socialization device.<sup>5</sup>

The doubts of the "second generation" are justified by the fact that there is no consistent pattern of the relationships between vocational/technical education. Although there are findings indicating positive relationships between earnings advantages and vocational/technical education, as exemplified by the studies of Michael Tannen, and Fredland and Little,<sup>6</sup> there are other findings which show no definite earnings advantages for young males who had gone through vocational/technical education in high schools. Examples are the studies of Michael Taussing, and Grasso and Shea.<sup>7</sup>

Referring to Japan's strong emphasis on educational development in relation to socio-economic growth, Kobayashi also cast doubts on the assumptions for the precise calculation of the return from education, although he accepts that there is a relationship between investment in education and economic growth. Moreover, there

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<sup>5</sup> See Mark Blaug, *Where are We Now in the Economics of Education*, a special professional lecture delivered at the University of London Institute of Education, Thursday, 16 June, 1983 (London: University of London Institute of Education, 1983), p. 8. "In time, the screening hypothesis will be seen to have marked a turning point in the 'human investment revolution in economic thought'." See Mark Blaug, *The Methodology of Economics, or, How Economics Explains* (Cambridge: Cambridge University Press, 1980), p. 239.

<sup>6</sup> See Michael B. Tannen, "Vocational Education and Earnings for White Males: New Evidence from Longitudinal Data", *Southern Economic Journal*, 50(2), 1983, 383; and John E. Fredland and Richard D. Little, "Long-term Returns of Vocational Training: Evidence from Military Sources", *Journal of Human Resources*, 15, 1980, 49-66.

<sup>7</sup> See Michael K. Taussing, "An Economic Analysis of Vocational Education in the New York City High School", *Journal of Human Resources*, Supplement, 3, 1968, 82-87; and John T. Grasso and John R. Shea, *Vocational Education and Training: Impact on Youth* (Berkeley: Carnegie Council on Policy Studies in Higher Education, 1979), p. 156.

are other worries about the emphasis on the concept of "education as investment".<sup>8</sup> First, it is held that the investment thesis is a narrowly utilitarian perspective on education. This utilitarian view of education may be too restricted and one-sided, which would encourage an evaluation of the effects of education solely by its contribution to industrial efficiency. For example, the Japanese Economic Council defined human competence in purely economic terms and referred to technology and science from a merely economic point of view:

As a part of the thorough emphasis on achievement orientation in education, a problem has risen in relation to the training of highly talented manpower. Here highly talented manpower refers to human competence that can play a leading role in various fields concerned with the economy and promote economic development.... But a dynamic age of technological innovation requires human resources of high competence such as scientists and engineers who can introduce technological advancement, innovative managers who can open a new market with new technology, and labour-management leaders who can effectively deal with complex labour relations. An awareness of the need for highly talented resources should be developed on the part of the schools and the society as a whole.<sup>9</sup>

Second, there is concern that the instrumental function of education for economic growth is over-stressed and everything is subordinated to the interest of industry. This is a problem identified by the OECD series of Reviews of National Policies for Education, which suggested that Japanese education is preoccupied with social efficiency at the expense of personal enrichment.<sup>10</sup> Moreover, Morito, Chairman of the Japanese Central Council for Education, while recognizing the significance of the notion of human investment, doubted whether human development as an objective of education could be achieved by the development of only those capabilities valued by the investment theory.<sup>11</sup>

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<sup>8</sup> Kobayashi, *op. cit.*, pp. 103-104.

<sup>9</sup> Japan. Economic Council, "Recommendations Concerning a Policy for Human Competence", Tokyo, 1963. Cited by Nobuo K. Shimahara, *Adaptation and Education in Japan* (New York: Praeger Publishers, 1979), p. 135.

<sup>10</sup> OECD, *Reviews of National Policies for Education: Japan* (Paris: OECD, 1971), p. 25.

<sup>11</sup> Cited by T. Kobayashi, *op. cit.*

After all, the premise that education leads to economic growth in Japan was challenged by Michio Nagai, who suggested Japan's post-war economic development in the sixties was not a result of educational development, but the direction of influence was the opposite. He asserted that the structural change of the Japanese economy was actually brought about by the social conditions outside the university, for instance, the dissolution of the *zaibatsu* instigated by Occupation policy, land reform, the formation of labour unions, and so forth. Major changes in the business world in turn came about as a result of the renovation of industries and equipment destroyed in the war, the importation of technical knowledge, and the Korean War, which stimulated rapid economic growth. "It was these changes that created the demand for large numbers of graduates." Nagai asserted, "In simpler terms, the long-standing tendency of the Japanese university inflationary expansion made possible by a rapidly changing society."<sup>12</sup>

R. F. Simpson, when evaluating the methodologies of educational planning for Hong Kong, suggests that the "manpower needs" and "human resource" approaches do not provide an adequate basis for planning in Hong Kong, although they cannot be entirely neglected. Rather, he favours the "aggregrate method", which attempts a balanced assessment of the society's needs as a whole rather than emphasising any particular level of education or manpower.<sup>13</sup> Y. P. Chung, in his study of the contribution of vocational and technical education to economic growth in Hong Kong, has observed that there are four characteristics of technical education in Hong Kong: (1) not all workers who go through a specific technical education found employment in the field corresponding to their original training; (2) most workers in each of the three major manufacturing industries (mechanical, electrical and electronic and textile and garment) had general education rather than vocational/technical

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<sup>12</sup> The *zaibatsu* were giant family trusts, which grew in the last quarter of the nineteenth century and were dissolved after World War II by order of the Occupation forces. Many have since regenerated. See Michio Nagai, *Higher Education in Japan: Its Take-Off and Crash*, trans. Jerry Dusenbury. (Tokyo: University of Tokyo Press, 1971), p. 50.

<sup>13</sup> R. F. Simpson, *The Methodology and Problems of Educational Planning*, (Hong Kong: Hong Kong Council for Educational Research, 1966), pp. 15 & 25.

education; (3) the basic trends have not changed between 1976 and 1981; and (4) a number of workers who are placed in the category of general education have completed junior or senior secondary general education, got a job in the industry, and then gone on to part-time in-service training in one of the five technical institutes. Hence, Chung concludes, even if we can establish that education did improve labour productivity and contribute to the economic growth of Hong Kong in the past two decades, technical education at the secondary school level has not played an important part.<sup>14</sup>

Referring to Singapore, Clark and Pang asserted that, while it is not difficult to list the many policies Singapore has adopted to promote development, it is much more difficult to assess their precise effects. In respect to educational policy, in line with Nagai and Chung's analyses of education and economic growth in Japan and Hong Kong, they suggested that "Singapore began to 'take off' before there was time for educational changes designed to promote industrialization to have any effect. Singapore's rapid development preceded the large-scale expansion of technical secondary and tertiary schools. Firms accommodated to what was available. Even after the effects of the educational policy changes began to appear in the labour market, the accommodation process within the firms remained important." Further, they commented that the rate of educational return approach is that it gives no clue as to the absorptive capacity of the economy for various types of educated manpower. For instance, we do not know what the impact of an abrupt increase in secondary school-leavers would be.<sup>15</sup>

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<sup>14</sup> Yue-Ping Chung, "The Contribution of Vocational and Technical Education to Economic Growth in Hong Kong", *CUHK Education Journal*, 14(2), 1986, 36.

<sup>15</sup> D. H. Clarke and Pang Eng Fong, "Accommodation to Changing Manpower Conditions: The Singapore Experience", *Malayan Economic Review*, 22(1), April 1977, 28-29 and "Returns to Schooling and Training in Singapore", *Malayan Economic Review*, 15(2), 1970, 47-48.

## **B. Academic Tradition versus Technical Orientation**

At an international congress on "Science and Technology Education and National Development" conducted by Unesco in Paris in 1981, it was reported that in the world today, in the teaching of science, although there is common emphasis on observation and inference or cultivating an inquiring approach to natural phenomena, creativity in a technological sense is clearly absent in both the scientific and practical areas of the conventional curriculum. Actually, in most countries, very little technology has so far been introduced into general secondary-school curricula.<sup>16</sup>

When evaluating technical and vocational education in national economic development, L. S. Chandrakant has highlighted some problems in modern Asian countries. The main problem is that an over-emphasis on academic qualifications, such as degrees, has brought into the teaching profession a large number of persons with little or no industrial experience. As a result, much of the learning in technical institutions is theoretical, out of text-books, and lacks adequate practical content and application, and teachers are unable to evolve teaching/learning strategies suitable to technician courses, to implement them in actual classroom situation, or to evaluate their own performance and find ways and means of improving the system.<sup>17</sup>

In Japan, the Japanese National Commission for Unesco reported that they did not see much improvement in closing the discrepancy between education in principle and education in practice over the post-war period. Not only could they see that educational dualism still existed, but that education in Japan still emphasized the principles of the machine rather than the operational methods of the machine.<sup>18</sup> Professor Yoshinobu Kakiuchi, a former University of Tokyo physicist also gives a

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<sup>16</sup> Unesco, *Science and Technology Education and National Development* (Paris: Unesco, 1983), pp. 39 & 88.

<sup>17</sup> L. S. Chandrakant, "New Perspectives for Technical and Vocational Education in National Economic Development", *Bulletin of the Unesco Regional Office for Education in Asia and Oceania*, (21), Jun 1980, 297.

<sup>18</sup> Japanese National Commission for Unesco, *The Role of Education in the Social and Economic Development of Japan* (Tokyo: Ministry of Education, 1966), pp. 300-1.



similar comment on today's Japanese education:

Japan can really only be proud of its science education in the first three years of elementary school. After that, the learning-by-rote process takes over, geared towards the university-entrance examination. There is little room for creativity and, since Japanese admire the person who can memorise lots of information, these kinds of people's brains can easily be replaced by computers.<sup>19</sup>

In Hong Kong, although there exists a number of secondary technical schools, these schools tend to maintain the academic tradition, as the curriculum is mainly an academic one with a technical bias. There was an attempt to introduce the English-type "secondary modern schools", but it did not prove a popular alternative to the academic secondary schools, and they were eventually converted into technical schools. The introduction of more technical courses into Government schools met with apathetic responses from the parents who then felt obliged to send their children to private schools. Practical work was regarded as a time-consuming luxury, and thus received just little more than lip-service. Moreover, most pupils who have completed three years of junior secondary schooling prefer going to grammar schools for general academic studies to entering apprenticeship training to become a skilled craftsman.<sup>20</sup>

In the late seventies in Singapore, an Extension Education Programme (EEP) was introduced to provide pupils of the Junior Trainee Scheme with continuing education. Under the programme, Junior Trainees are required to attend EEP classes one day a week, with teaching in language, arithmetic, civics and social education, and a spoken second language. However, one of the criticisms of the programme is that the subjects taught are "bookish". The subject content is highly abstract and beyond the intellectual capacity of many trainees. As the courses of study lead to no recognized formal qualification nor are they relevant to the work-

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<sup>19</sup> Cited by David Lammers, "Science in the Classroom", *Far Eastern Economic Review*, 14 June 1984, 68.

<sup>20</sup> R. F. Simpson, *Technical Education and Economic Development* (Hong Kong: Hong Kong Council for Educational Research, 1966), pp. 2-4, 12-13.

related skills, the trainees and teachers tend to be unenthusiastic.<sup>21</sup>

There are some reasons for the perpetuation of the academic tradition rather than a technical and practical orientation. First, it is costly to provide adequate facilities and equipment. Nor is the scale of workshops compatible with the real situation in modern factories. In a fast changing age, it is necessary but at the same time difficult for institutes to replace equipment at short and regular intervals.<sup>22</sup> Hence, the general practice of on-the-job training in Japan seems to be a practical way of overcoming this discrepancy between educational institutions and the real working environment. Secondly, there is a problem with the teaching force. The staff of the teaching institutions are generally recruited from university graduates in engineering for senior positions, such as lecturers, and from technician diploma or certificate-holders for junior positions, such as instructors. Since they have not been specifically prepared for technical education, they are unlikely to evolve suitable teaching/learning strategies to implement them in classroom situations, or to evaluate their own performance and find ways and means of improving the system.<sup>23</sup> The Unesco Regional Office has identified two problems of science education in Singapore that are related to teachers, namely, teachers whose earlier professional training in science teaching had a different emphasis lack the expertise to conduct lessons using the activity approach, and lack in perception and related observation skills in science.<sup>24</sup> Thirdly, the perpetuation of the academic tradition is strongly related to the prevailing social aspiration which sees it as the function of schooling to produce professionals and elites.

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<sup>21</sup> P. Sydael, "Technical and Vocational Education in Asia and Oceania: Singapore", *Bulletin of the Unesco Regional Office for Education in Asia and Oceania*, (21), Jun 1980, 213-214.

<sup>22</sup> Cf. Francis H. K. Wong, *Comparative Studies in Southeast Asian Education* (Kuala Lumpur: Heinemann Educational Books, 1973), p. 38.

<sup>23</sup> L. S. Chandrakant, *op. cit.*

<sup>24</sup> "Science Education in Asian Countries", *Bulletin of the Unesco Regional Office for Education in Asia*, (18), Jun 1977, 148.

### C. The Syndrome of Professionalism

The major objective in promoting scientific and technical education is the promotion of economic prosperity. By promoting scientific and technological education, people expect their society to become more modernized and industrialized, and the corollary is to have greater economic growth. However, other aspects of social development such as social equality or cultural enrichment do not seem to fall within this understanding of development.

In promoting scientific and technical education, there emerge two groups or two classes of people, the specialists/professionals and the skilled workers. At the top level, there are scientists or engineers pioneering the development of science and technology in society. But the school has to train a large number of mid-level and skilled workers to become frontline workers also. The traditional function of schooling was to produce officials for the bureaucracy. The graduates might not be professionals in today's sense, but they were certainly the elites of society. In societies which emphasize scientific and technological development, and which structure education for such development, more specialists are produced from schools, and they constitute the professionals of modern societies.<sup>25</sup>

The production of professionals in school is a perpetuation of elitism. But as Zsuzsa Ferge suggests, there are two disillusionments about the effects of the school system. The first is the belief that school could redeem society and the second is that there could be harmony between school products and the structure of skills.<sup>26</sup> It is the second disillusionment that will be discussed here. Scientific and technological developments require more skill and professional knowledge, but, Ferge points out, it is the *school* that dispenses the skills. This occurs mainly as a result of the tendency

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<sup>25</sup> See Albert J. Reiss, Jr., "Individual Background and Professional Careers" in Howard M. Vollmer and Donald L. Mills, eds., *Professionalization* (Englewood Cliffs: Prentice-Hall, 1966), p. 81.

<sup>26</sup> Zsuzsa Ferge, "School Systems and School Reforms" in Antonina Kloskowska and Guido Martinotti, eds., *Education in a Changing Society* (California: Sage Publications Ltd., 1977), p. 20.

to perpetuate the logic of the elitism of the past. Nagai suggests that contemporary professional education in Japan was originally intended as a means of meeting the need of technological development for the society, but it has now become an end in itself. The society is thereby pervaded with academic pedigreeism, cliques and class distinctions.<sup>27</sup> Simpson remarks that education in Hong Kong provides the route to a professional or white-collar job. This is a means of escape from low-salaried employment and as such it is rarely related to future occupations, but rather to aspirations.<sup>28</sup> Pang contends that education in Singapore is the major avenue to high-level jobs.<sup>29</sup> Llewellyn Noronha also considers that elitism is the cornerstone of the Singapore education system.<sup>30</sup> This emphasis on educating elites is supported in Lee Kuan Yew's speech:

... it is essential to rear a generation at the very top of society that has all the qualities needed to lead and give the people inspiration and the desire to make it succeed.<sup>31</sup>

When functioning as a source of professionals, such as scientists, engineers, doctors, lawyers, economists, etc., the school serves the society well, for it nurtures scientists for scientific and technological development. However, when the school has to take up the role of vocational/technical training for manual jobs, producing skilled workers for factories, a functional dilemma emerges, for professionals are elites but skilled workers are not. This dilemma is reflected in the rise of the "fear of dilution" of professional status, as Lewis and Maude point out. Because of this "fear of dilution", there comes "an attempt not to provide a new kind of professional education leading to a new kind of expert, equal in quality to existing engineers or industrial chemists, but to produce an inferior grade simply to fill the shortages

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<sup>27</sup> Nagai, *op. cit.*, p. 76.

<sup>28</sup> Simpson, *op. cit.*, p. 13.

<sup>29</sup> Pang Eng Fong, *Education, Manpower and Development in Singapore* (Singapore: Singapore University Press, 1982), p. 132.

<sup>30</sup> Llewellyn Noronha, "Educational Reality in Singapore - Manipulation or Management?" *Forum of Education*, 40(3), Sept 1981, 13.

<sup>31</sup> Lee Kuan Yew, *New Bearings in Our Education System* (Singapore: Ministry of culture, 1966), p. 9.

which the professional bodies are behindhand in filling.”<sup>32</sup> As a result, in general, schools simply adopt a longer cycle of the traditional course - teaching traditional subjects, enriched with some theoretical aspects of the skill. However, even this is not always relevant to practice, as the pupils learn it mainly in school conditions, not factories. “Thus, it is only high-level professional training that became an intrinsic part of school-type education.”<sup>33</sup> And technical education seems to be designed for the academic failures or the less able students in the educational system.

Singapore embarked on two major schemes of technical education during the late seventies. These were the Basic Courses and the Junior Trainee Schemes. The two schemes were designed for premature primary-school leavers, channelling them to vocational training courses. What is worth-noting is that the Basic Course was explicitly said to be designed for the “academically-poor” or the “less academically-inclined” pupils. However, it did not prove popular. To the pupils, the Basic Course was merely another form of the primary schooling with which they had been unable to cope. To the teachers, it was frustrating to teach a group of “school failures” who had neither the incentive nor the ability to learn.<sup>34</sup> Further, when discussing the problems of teaching science to pupils in the vocational institutions, the Unesco Regional Office reports that the majority of the trade course students have low general academic ability. Motivating these students is a difficult task, as their interest in learning is often lacking.<sup>35</sup> In Japan, most of the students who complete vocational/technical courses enter a vocation but few are able to proceed to institutions of higher education.<sup>36</sup> It is no wonder that students in vocational schools tend to have higher delinquency rates. This can be explained, in part, in terms of background factors, such as coming from a low-income or broken family. However, William Cummings alleges that frustration due to reduced opportunities

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<sup>32</sup> Roy Lewis and Angus Maude, *Professional People* (London: Phoenix House, 1952), p. 217.

<sup>33</sup> *Ibid.*

<sup>34</sup> Sydael, *op. cit.*, p. 210.

<sup>35</sup> “Science Education in Asian Countries: Singapore”, p. 149.

<sup>36</sup> K. Takada, “Technical and Vocational Education in Countries of Asia and Oceania: Singapore”, *Bulletin of the Unesco Regional Office for Education in Asia and Oceania*, (21), Jun 1980, 96.

for achievement should be an important factor.<sup>37</sup>

The emphasis on science and technology education as a factor of specialist education leads to the perpetuation of a longstanding social problem: social differentiation. The more specialization the school system produces, the more social differentiation there is. As Ferge remarks,

*The division and the differentiation of work means, at the same time, the division and differentiation of the workers, too. That is why the special manpower training programmes, whose proponents try to reduce by this means insecurity, unemployment and inequalities that follow, are not successful, either.*<sup>38</sup>

Referring to the school system in Japan, Nobuo Shimahara points out that as education has been regarded as a political and economic instrument in Japanese society, schooling thus becomes an essential basis of social stratification. The allocative functions of schooling have remained in the modern Japanese society, they have been further articulated and differentiated as more complex social and economic forces have impinged upon schooling. College education, or tertiary education, is commonly required for white-collar jobs in secondary and tertiary industries. There are also great demands from industry for workers of a higher technical and intellectual level. Hence, parents and pupils have a strong preference for the general academic course because of the better prospect which they afford of entering higher institutions.<sup>39</sup>

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<sup>37</sup> William K. Cummings, "Expansion, Examination and Equality" in William K. Cummings, Ikuo Amano and Kazuyuki Kitamura, eds., *Changes in the Japanese University: A Comparative Perspective* (New York: Praeger, 1979), pp. 92-3.

<sup>38</sup> Ferge, *op. cit.*, p. 21.

<sup>39</sup> Shimahara, *op. cit.*, p. 125 and Shiego Masui, "The Problem of the Comprehensive Secondary School in Japan", *International Review of Education*, 17, 1971, 34.

#### **D. The Challenge to Traditional Values**

To many, science and technology seem to be value-free, and they conceive of modernization and industrialization without Westernization. However, if culture is perceived as the customs or ways of life which are connected with values, this is not the case.<sup>40</sup> The study of science and technology is not a value-free discipline, T. Y. Wu asserts, nor is the study of humanities a science-free discipline.<sup>41</sup> In discussing technical learning and cultural learning, Rolfe Vente maintains that science and technology are not culture-free but culture-bound. Technical learning becomes successful only if and when cultural learning has provided new attitudes and approaches and has transmitted nothing less than a revolutionary new world view. Nevertheless, technical learning and cultural learning are not automatically complementary to each other, rather, they often contrast with and even hamper each other. When one is dominant, new challenges and tensions between the two emerge. And it is this complicated relationship between the two that makes the formulation of educational policies for balancing technical learning and cultural learning a formidable task. As the two are always interconnected, Vente considers the assumption that educational policies can be based on a concept of having "the best of both worlds" - "Western" technology and "Asian" culture - is false.<sup>42</sup>

Vente has observed a heavy stress on scientific and technological education in modern Asian countries, and this emphasis could encounter severe difficulties arising from two very different sources. In the first place, there is no adequate cultural learning to create the appropriate context for technical learning. In the second place, those Asian countries which have gone through the process of specific cultural learning might sooner than expected enter a third phase. By the very

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<sup>40</sup> "If by culture is meant a way of life, then culture has been profoundly changed by science and technology". See Huq, *op. cit.*, p. 194.

<sup>41</sup> Wu Teh-Yao, "Creativity and Innovation Through the Ages" in R. E. Vente, R. S. Bhathal and R. M. Nakhood, eds., *Cultural Heritage Versus Technological Development: Challenges to Education* (Singapore: Maruzen Asia, 1981), p. 36.

<sup>42</sup> Rolf E. Vente, "Reconciling Technical Learning with Cultural Learning: A Prime Educational Task" in Vente, Bhathal and Nakhood, *op. cit.*, pp. 8-14.

emphasis on technical learning they might encounter a strong resistance to it and a return to cultural learning understood as contrasting and even attacking science and technology. Vente considers that this is already the case in Singapore.<sup>43</sup>

Japan, Singapore and Hong Kong have placed a strong emphasis on science and technology learning. It is interesting to note that M. K. Lee's analysis of the development of the role of intellectuals in Hong Kong is in accord with such a stress. He suggests that in the past thirty years, Hong Kong has developed into a highly industrialized, urbanized and affluent society. The intellectuals in Hong Kong have changed from "men of ideas" to "professional bureaucrats", employing the concepts of Coser and Bell. And the typical intellectuals in the eighties are of the "polytechnic" type, serving as technical intellectuals.<sup>44</sup> According to Lee, traditional values have collapsed in the eighties and new values have not yet developed. This value vacuum was soon occupied with capitalist individualism and utilitarianism. Instead of challenging the government, the modern intellectuals in Hong Kong support the government, acting as consultants, researchers, technicians, and so on. In sum, they make use of their expertise to serve materialistic purposes.<sup>45</sup> S. Wu, after acting as visiting lecturer for a year, also concluded that "secular utilitarianism" had become the norm for Hong Kong society.<sup>46</sup>

There is no lack of literature emphasizing the need for cultural learning in Singapore, and it is generally regarded that Japan has been successful in maintaining a traditional culture, despite the overwhelming scientific and technological progress in the country.<sup>47</sup> However, in spite of such emphasis on cultural learning, there are

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<sup>43</sup> *Ibid.*, p. 15.

<sup>44</sup> M. K. Lee, "The Intellectuals as Nurtured from the Hong Kong Higher Institutions" (in Chinese) in Joseph Y. S. Cheng, *Studies on Higher Education in Hong Kong*, pp. 19-21. Cf. Lewis Coser, *Men of Ideas* (New York: The Free Press, 1970) and Bell, *op. cit.*

<sup>45</sup> Lee, *op. cit.*, pp. 23-25.

<sup>46</sup> Wu Sen, "A Philosophical Consideration of Higher Education in Hong Kong" (in Chinese) in Cheng, *op. cit.*, p. 38.

<sup>47</sup> See Ragbir S. Bhathal, "Science, Culture and Education" in Vente, Bhathal and Nakhoda, *op. cit.*, p. 94. In Hong Kong, civic education has emerged as a major concern only in the eighties, which is relatively later than the other two countries. One reason for the growing concern may be a



clear indications of the changes in traditional values in societies that have embarked on modernization. Certainly, there are merits in value change. Parsons, for instance, holds a positive view of modernity and utilitarianism.<sup>48</sup> However, in these Asian societies, people are apprehensive rather than enthusiastic about the changes.

In the technological age where there is emphasis on efficiency, maximal profits and rapid development, it is inevitable that some new values, such as pragmatism and utilitarianism, have to be developed. Pang stresses that Singapore requires the adoption of pragmatism to facilitate its rapid industrialization.<sup>49</sup> S. C. Tham, referring to the situation in Singapore, suggests that the development of science and technology has led to a constellation of new values, namely, achievement, socio-economic mobility, individualism, rationality, goal-orientedness, efficiency, and materialism. He further suggests that the emergence of these new values has social implications. First, all the above-named values strengthen the egotistical drives of the individual and simultaneously weaken his social (moral) drives. Second, individual worth is measured in terms of contribution to the production process. Third, the pursuit of self-interest is institutionalized. Fourth, economic processes pushed on relentlessly by the ethos of achievement and success have a direct effect on the institutionalization and practice of moral and cultural values.<sup>50</sup>

In Japan, early in the sixties, the "Image of the Ideal Japanese", the 1966 report of the Central Council on Education, already deplored the negative social consequences of scientific and technological advancement:

This is the age of science and technology. However, the industrialization process has produced a dehumanizing effect upon man.... Thus man is in danger of being mechanized for the sake of technological advancements....

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result of the proximity of the change in government in 1997, which leads to more reflections on the role of education to inculcate values for the change.

<sup>48</sup> See Leon Mayhew, "In Defense of Modernity: Talcott Parsons and the Utilitarian Tradition", *American Journal of Sociology*, 89(6), 1984, 1273-1305.

<sup>49</sup> Pang Eng Fong, *Education, Manpower and Development in Singapore*, pp. 5-6.

<sup>50</sup> Tham Seong Chee, "Schools and Value Development in Singapore", *RIHED Bulletin*, 8(1), Jan-Apr 1981, 20.

The economic prosperity which Japan has been enjoying has produced hedonistic tendencies and a spiritual vacuum...<sup>51</sup>

In 1986, the Japanese Science and Technology Agency published a White Paper which focuses on the impact that scientific and technological developments are having on people's lives. It pointed out that although scientific and technological developments in Japan have led to improvements in the people's material well-being, these have also led to various social problems, including the weakening of people's faculties as life becomes easier and the weakening of human relations as a result of the proliferation of machines.<sup>52</sup> In his essay on bullying in the Japanese schools, Peter Popham reported that there are worries in Japan about an economic success which has led to the loss of the traditional kindness of the Japanese people and the rise of greed which is becoming acceptable and normal.<sup>53</sup>

S. Yang, when analysing the riots in 1983 in Hong Kong, said that the prevalence of materialism in the society is the underlying cause of the social unrest. Yang considered that Hong Kong society values material possession and consumption ability and the cult of materialism has supplanted the traditional ethics of the society. Because of the emphasis on material possession, a large group of youth who have little purchasing power become frustrated, and it is this frustration that gives rise to the riots.<sup>54</sup>

The above discussion has examined the rise of new values in societies where science and technological developments are stressed. The rise of these values and the social consequences of these values are so overwhelming that education for cultural learning does not seem to be able to withstand the forces of change. Helen Yum

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<sup>51</sup> Cited by R. Cowen, *Mass and Elite Aspects of Educational systems: A Comparative Analysis* (Ph.D. Thesis, University of London, Institute of Education, 1981), p. 132.

<sup>52</sup> Cited by "The Relevance of Science and Technology and the Quality of Life", *Japan Education Journal*, Special Issue: Science and Technology, (32), 1987, p. 11.

<sup>53</sup> Peter Popham, "Bullied to Death", *Asia Magazine*, 24(A-18), 21.

<sup>54</sup> Yang Sen, "How Should We Treat the Youths?" (in Chinese) in *An Anatomy of Hong Kong Society*, Vol. 2 (Hong Kong: Wide Angle Press, 1984), pp. 47-48.

has noticed the penetration of modern "international" values among youngsters in modern Asian countries and says that it has had some negative social effects:

In Hong Kong, the kids have been described as precocious, worldly-wise and materialistic.... Among themselves, youngsters produce their own rules, philosophy and lifestyle to meet needs apparently unmet by traditional institutions of family and school. Their subculture has been called anti-social, promiscuous, egotistical, hedonistic and violent.

Certainly, (in Japan), the values of the new generation are changing. A recent study of 1,600 young Japanese by major advertising firm Hakuhodo showed nearly 69% said they lived for pleasure, a selfish attitude by their elders' standards. Money was high on their list of job criteria. Other similar studies have borne out that today's Japanese youth are more individualistic than ever before. They also lack perseverance and commitment to causes...

The public was alarmed in Singapore when 1983 statistics showed rising teenage abortion - at the rate of five a day - under the republic's liberal abortion law.... Foreign values, pop songs which equate love with sex and pornographic diskettes were blamed and sex programmes were suggested.<sup>55</sup>

Yum's depressing description of the youth of today stresses prevalent attitudes or values, such as materialism and individualism, which are exemplified in their urge for money or hedonism. Yum's description provides an up-to-date account of how the youngsters are influenced by the new attitudes and values arising from the stress on scientific and technological developments. It is noteworthy that the lack of attractiveness of schooling to the youngsters today is mentioned several times in her report. The role and function of education in the world today require new thought.

Mulford Sibley's warning some time ago is still applicable today. Sibley maintained that an over-emphasis on scientific and technological development will make social and political values completely subordinate to the needs of the machines and

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<sup>55</sup> Helen Yum, "Where the Kids Are?" *Asiaweek*, Jun 28, 1985, 20-26.

constrain freedom and equality to the planning and co-ordination made imperative with the infinitely complex division of labour that accompanies industrial-age technology.<sup>56</sup>

There have been attempts to reconcile technical learning and cultural learning. On the one hand, there are attempts to include non-technical topics and issues into science and technology curricula. But Vente suggests these attempts on the whole are not successful mainly because the humanistic teaching in science and technology lessons is too broad and general and there is a lack of a subject which can successfully integrate the science and non-science fields. On the other hand, there have been recent attempts both to teach the indigenous languages and to use them as the medium of instruction as well as to include "moral teaching" in the curricula. The effects of these attempts will be discussed in the next chapter.<sup>57</sup>

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<sup>56</sup> Mulford Q. Sibley, *Technology and Utopian Thought* (Minneapolis: Burgess, 1971), pp. 21-22.

<sup>57</sup> See Vente, *op. cit.*, p. 16.

Section Three  
Education in  
Rapidly Changing  
Societies

## CHAPTER SEVEN

### BECOMING RAPIDLY CHANGING SOCIETIES

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#### A. The Accelerating Pace of Change in Modern Societies

Societies change. What is more, change in the world today is taking place at an extraordinarily rapid and accelerating tempo. Alvin Toffler has charted the acceleration and rapidity of change in modern societies. For example, he points out that the world is undergoing rapid urbanization. In 1850, there were only four cities with a population of one million on earth, but the number grew to nineteen in 1900 and jumped to 141 in 1960. Not only is the number of cities growing, but man's consumption of energy is accelerating. About half of all the energy consumed by man in the past two thousand years has been consumed in the past hundred. Further, there is evidence of the acceleration of economic growth in the nations racing toward "superindustrialism". In France, in the years between 1910 and the outbreak of World War II, industrial production rose only 5 per cent. But today, growth rates of from 5 to 10 per cent per year are not uncommon among the industrialized nations (including Japan, Singapore and Hong Kong). Travelling speed is also accelerating. By 3,000 B.C., when the chariot was invented, the maximum speed was about 20 mph. However, in 1880, the invention of a more advanced steam locomotive could achieve a speed of 100 mph, and after 50 years, in 1931, airborne man could break the 400-mph limit. By the 1960s, rockets could bring man to a speed of 4,000 mph.<sup>1</sup>

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<sup>1</sup> Alvin Toffler, "Futureshock" in Nigel Cross, David Elliot, and Robin Roy, eds., *Man-Made Futures: Readings in Society, Technology and Design* (London: Hutchinson, 1974), pp. 39-40.

To illustrate more clearly, Toffler divides the last 50,000 years of man's existence into 800 lifetimes, i.e., about sixty-two years each. Looking into man's activities in these 800 lifetimes, he discovers that fully 650 of these lifetimes were actually spent in caves. And what has happened in the last 150 lifetimes is more than impressive:

Only during the last seventy lifetimes has it been possible to communicate effectively from one lifetime to another - as writing made it possible to do. Only during the last six lifetimes did masses of men ever see a printed word. Only during the last four has it been possible to measure time with any precision. Only in the last two has anyone anywhere used an electric motor. And the overwhelming majority of all the material goods we use in daily life today have been developed within the present, the 800th, lifetime.<sup>2</sup>

Toffler's analysis is supported by many other writers. David M. Freeman, for example, describes the impact of technology by compressing it into a time frame.<sup>3</sup> The past lifetime of the earth is compressed into eighty days, and the distinctive activities of these eighty days will thereby appear in the time sequence as listed below:

1. Life appeared 60 days ago.
2. The earlier forms of man appeared one hour ago.
3. The Stone Age started six minutes ago.
4. Modern man appeared less than a minute ago.
5. The agricultural revolution occurred 15 seconds ago.
6. The metal age appeared ten seconds ago.
7. The industrial revolution began three-tenths of one second ago.
8. Modern industrial and post-industrial technology has been advanced and diffused in the remaining micro-seconds.

The list points out that what has happened that brings forth the modern era actually took place quite recently, occurring at an increasingly rapid rate worldwide.

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<sup>2</sup> Alvin Toffler, *Future Shock* (London: Pan Books, 1971), p. 22.

<sup>3</sup> David M. Freeman, *Technology and Society: Issues in Assessment, Conflict, and Choice* (Chicago: Rand McNally, 1974), p. 12.

In the early twentieth century, Henry Adams, for the first time plotted an exponential growth curve, or the J-curve, to illustrate the rapid pace of change, as shown in Figure 5. Exponential growth refers to the acceleration rates or growth that doubles within equal periods of time. The idea of exponential curves has now become commonplace. It shows the quickening change of pace that drives all spheres of our lives, such as inventions, energy consumption, knowledge, population, and etc.<sup>4</sup> This view is shared by later writers such as Steven Vago and Daniel Bell. Bell further suggests that change in the modern era can be measured in terms of “production function”, which also shows a high rate of change in the modern period.<sup>5</sup>

Although the changes mentioned above mainly took place in the Western world, as earlier argued, technological change is not confined only to the advanced nations but is tending to be a worldwide phenomenon. This rapid tempo of change is also taking place in the rest of the world, including the Asian societies studied here. What is more, the change there is likely to be more rapid and radical than that in the Western world. The reason is obvious. Being late-comers, industrial revolution and modernization did not originate in these societies. This means that technological changes, at least initially, were introduced into the societies rather than being indigenous growths. Also, as elements in a society are more integrated than segregated, changes in one sphere will lead rapidly to changes in another. In this way, modernization becomes a process that embraces technological and economic change, socio-political change, and also value change.

“If one doubts whether rapid change really occurs in Western societies, such doubts fade when attention is turned to the world of the developing countries.” J. A. Ponsioen remarks, “Some doubt whether changes here are rapid, mainly because they feel that they are not rapid enough. Implicit to these societies is that they do

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<sup>4</sup> See Bell, *The Coming of Post-Industrial Society*, p. 169.

<sup>5</sup> See Steven Vago, *Social Change* (New York: Holt, Rinehart and Winston, 1980), pp. 93-34 and Bell, *op. cit.*, pp. 168-169 & 192-195.



not have the strong tradition of change which Western societies possess, and that they are now in the phase of sudden all-embracing change. This encompasses all sectors, political (the regimes, political parties, the role of the military), economic (agriculture, industrialization, services) and social (education, health care, social security, social assistance), as well as family life, religion, law, communications, sports and recreation. It affects all layers of human reality: the values, interpretations, institutions, attitudes, habits, spontaneous structures, as well as formal organizations. Peoples of the new nations are experiencing a new technology, a new type of rule and management. All this occurs while their traditional forms of life have not yet died out in the minds, hearts and habits of the population.”<sup>6</sup>

The discussion of the beginning chapter on socio-economic, cultural, and political background has already emphasized the rapid and radical social change that Japan, Singapore and Hong Kong have experienced in the past few decades. Hence, it suffices here to outline only a few salient points. In fact, the concept or the term “rapid change” has become commonplace in works analysing the recent social situation of the three societies. The rapidity of change in Japan, for instance, was trenchantly expounded by Edwin Reischauer:

Our brief run-through of Japanese history should show that the Japanese have changed over time as much as any people, and considerably more than many. They have been extremely responsive to changing external conditions.... Contemporary Japanese are no more bound by the patterns of feudal warriors, Tokugawa samurai bureaucrats, or prewar militarists than Swedes are bound by Viking traditions.... Japan since the war differs in many fundamental ways from what the country was in the 1930s, just as it differed greatly in that period from what it had been a half century earlier, and the late nineteenth century from the early, and so on back through history...

The speed of change makes sharp analysis particularly difficult. I personally have been observing Japan and writing about it long enough to be acutely aware of this problem. The firm generalization of one decade may start to break down in the next and be almost gone by the one after.

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<sup>6</sup> J. A. Ponsioen, *The Analysis of Social Change Reconsidered: A Sociological Study* (Hague: Mouton, 1969), pp. 199-200.

The salient features of Japanese life seemed quite different in the 1930s from the 1920s and even more different again in the 1950s and 1970s. Younger Japanese who have received their total education since the end of World War II appear to be almost a new breed when compared with their prewar elders. What Japanese will be like in the future no one can tell.... It is as if we were trying to get our bearings on one fast moving, ever changing cloud in its relationships with another that is equally subject to movement and change. The best we can hope for is some rather vague approximations.<sup>7</sup>

Tadashi Fukutake's *Japanese Society Today* is a book about rapid social change in Japan. In this book, Fukutake points out that in Japan there is rapid change in nearly all social spectra including population and social structure, family and socialization, rural society, urbanization, industrialization and working environment, and economic and political development. Taking demographic, economic and industrial changes, for example, population grew from 34 million in 1872 to 50 million in 1911 and further to 70 million by the beginning of World War II. Japan's population of 72 million in 1945 reached 80 million by 1948. In 1956, it rose to 90 million. Ten years later, it broke the 100 million mark in 1967, and it further grew to 117 million in 1980. At the same time, there has been a remarkable change in urban population. Population in Tokyo grew at a rate of one million a decade, i.e., from 5.4 million in 1950 to 8.4 million in 1980. And in Yokohama, it grew from 950 thousand to 2.8 million in the same period.<sup>8</sup> In the economic sphere, Japan's GNP rose by 68 per cent from 1955 to 1960. And it doubled every five years during the decade of the sixties. In 1970, it reached an amount 6.7 times that of 1955. Industrial production also increased 7.6 times during those fifteen years. Since 1960, the growth rate of industrial production has exceeded that of the GNP almost every year.<sup>9</sup>

Singapore and Hong Kong have similar records. In Singapore, population grew

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<sup>7</sup> Edwin O. Reischauer, *The Japanese*, pp. 123-126. Citing Reischauer's account of rapid and radical change in Japanese society by no means undermines the fact that there are continuities of Japanese traditions. The persistence of Japanese traditions in the modern society is particularly stressed by William Caudill, whose viewpoint will be discussed in Section C of Chapter Nine.

<sup>8</sup> Fukutake, *Japanese Society Today*, pp. 14-15 & 19.

<sup>9</sup> *Ibid.*, p. 81.

from 97 thousand in 1871 to 137 thousand, and it reached 938 thousand in 1947. After ten years in 1957, it rose to 1.4 million. In 1970 it became 2 million.<sup>10</sup> In the economic sphere, Singapore's GDP at factor cost grew from S\$1.9 billion in 1957 to S\$11 billion in 1980.<sup>11</sup> Its average annual increase in real GDP was 13.3 per cent in 1966-1970 and 10.8 per cent in 1970-1974.<sup>12</sup> In respect of industrial development, S. A. Lee remarks that the share of manufacturing industry in GDP rose from 9.2 per cent in 1960 to 14.5 per cent in 1966 and reached about 26 per cent in 1973. Because of this expansion in manufacturing industry, female workers increased by 450 per cent from 1967 to 1972.<sup>13</sup> Lee also points out that apart from economic and industrial development, Singapore has experienced rapid development in many other areas including development into a regional transport, communication and financial centre; increase in exports of telecommunication apparatus, office machines and electrical machinery; and high growth in public consumption and public sector capital formation.<sup>14</sup>

The population of Hong Kong is the most fluctuating among the three. It grew from 90 thousand in 1841 to 180 thousand in 1871 and then rose to 1.6 million in 1941. Because of the war, it dropped to 600 thousand in 1945, but rose again to 2 million in 1950. Since then, it was increased by one million a decade - 3 million in 1961, 4 million in 1971 and 5.2 million in 1981.<sup>15</sup> Concerning economic growth, Yin-Ping Ho points out that over the period 1961-1984, Hong Kong has achieved an annual growth of 17.6 per cent at average compound rate or 10 per cent in constant dollars. The contribution of the manufacturing industry to GDP

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<sup>10</sup> Singapore Department of Statistics, *Economic and Social Statistics: Singapore 1960-1982* (Singapore: the Department, 1983), p. 7.

<sup>11</sup> GDP is calculated at 1968 factor cost, see Pang Eng Fong and Greg Seow, "Labour Employment and Wage Structure" in Peter Chen, ed., *Singapore: Development Policies and Trends* p. 161.

<sup>12</sup> *Ibid.*

<sup>13</sup> Lee Soo Ann, "The Economic System" in Hassan, ed., *Singapore: Society in Transition*, pp. 14 & 18.

<sup>14</sup> *Ibid.*, pp. 14-25.

<sup>15</sup> David Podmore, "The Population of Hong Kong" in Hopkins, ed., *op. cit.*, p. 26; *Hong Kong 1971*; and *Hong Kong 1982: A Review of 1981*.

accounted for 24 per cent in 1961 and it went up to 31 per cent in 1970.<sup>16</sup> David Chu and S. M. Li point out that while manufacturing employment increased by 36.4 per cent, business services increased 174 per cent during the period 1971-1981.<sup>17</sup> "This structural movement reflects the rapid pace of Hong Kong's export industrialism in the 1960s," says Ho.<sup>18</sup> Ho further suggests that Hong Kong has experienced changes in many other areas including trade patterns, export structure, and employment structure.<sup>19</sup> And it is interesting to note that writers on social, economic and political development of Hong Kong are fully aware of the changes Hong Kong has undergone. Hence, titles on "change" abound, such as, "Family Change", "Post-war Changes in Hong Kong's Housing Problems", "It's All Change in the New Territories", "Hong Kong 1949 - Hong Kong 1979: Thirty Years on the Winds of Change", and after all, "All Change Hong Kong".<sup>20</sup> No wonder Joseph Cheng states in his preface to *Hong Kong in Transition* that "since 1949, the society and economy of Hong Kong have undergone enormous changes."<sup>21</sup>

## B. Mechanisms of Change

If technology, ideology, competition, desire for prestige, conflict, polity, economic gain and structural strains are elements that constitute the mechanisms of

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<sup>16</sup> GDP is calculated at current market price, see Yin-Ping Ho, "Hong Kong's Trade and Industry: Changing Patterns and Prospects" in Joseph Y. S. Cheng, ed., *Hong Kong in Transition* (Hong Kong: Oxford University Press, 1986), pp. 167-171.

<sup>17</sup> David K. Y. Chu and S. M. Li, "Transport" in Joseph Y. S. Cheng, *op. cit.*, p. 373.

<sup>18</sup> Ho, *op. cit.*, p. 171.

<sup>19</sup> *Ibid.*, pp. 170-186.

<sup>20</sup> See Fai-Ming Wong, "Family Change" in *1951-1976: A Quarter-Century of Hong Kong. Chung Chi College 25th Anniversary Symposium* (Hong Kong: Chung Chi College, Chinese University of Hong Kong, 1977), pp. 47-68; David W. Drakakis-Smith, "Post-war Changes in Hong Kong's Housing Problems" in Majorie Topley, ed., *Hong Kong: The Interaction of Traditions and Life in the Towns* (Hong Kong: Royal Asiatic Society, 1972), pp. 137-145; David Akers-Jones, "It's All Change in the New Territories as Hong Kong's Adaptability is Tested Yet Again", *Hong Kong Standard 30th Anniversary Magazine*, 21; Chris Bale, "Hong Kong 1949 - Hong Kong 1979: Thirty years on the Winds of Change", *op. cit.*, 7-11; and Robert Adley, *All Change Hong Kong* (Dorset: Blandford Press, 1984).

<sup>21</sup> Joseph Y. S. Cheng, "Preface" in Joseph Cheng, ed., *op. cit.*, p. vii.

change, as suggested by Steven Vago and George Foster,<sup>22</sup> a brief scrutiny shows that these three societies all possess more or less of these elements that will promote rapidity of change.

Technology development is a major emphasis in the three societies, as mentioned in the previous section. The renewal and the advancement of technology may either directly or indirectly stimulate changes in other spheres of society and these social changes may on the other hand stimulate further technological changes, and an on-going spiral will thereby be formed: technological advancement stimulates social change which stimulates further technological development which leads to further social change, and so on.

As regards ideology, Vago contends that Weber's concept of "this-worldly" orientation, which focuses on such values as hard work and frugality, is the prerequisite for major restructuring of economic life. From this point of view, the three societies are certainly "this-worldly" orientated. As they were influenced by Confucianism in the past they are influenced by the Western ideology of this-worldliness in the present. Although there are certain differences between the world views of the Eastern Confucianism and the Western ideology of this-worldliness, Reinhard Bendix in his account of Weber's thought suggests that there are two fundamental similarities between them. First, both world views encourage sobriety and self-control and make all personal and mundane affairs matters for conscious deliberation. Second, both world views are compatible with the accumulation of wealth.<sup>23</sup> This is exemplified by the fact that the three societies have placed strong emphasis on human investment for technological and economic development. Hard work is emphasized by the governments of the three societies, especially in Singapore. Although frugality is

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<sup>22</sup> Steven Vago, *op. cit.*, pp. 93-121 and George M. Foster, *Traditional Societies and Technological Change* (New York: Harper & Row, 1973), pp. 155-160.

<sup>23</sup> Reinhard Bendix, *Max Weber: An Intellectual Portrait* (London: Methuen, 1969), p. 141. The Western ideology is represented by what Weber calls the protestant ethic, which is a prerequisite of the emergence of modern capitalist spirit. This will be further discussed in Section C of Chapter Nine.

giving way to consumerism, consumerism on the other hand is another stimulant to accelerate economic activities.

Strong competition, especially in education, within society is well known in Japan, Singapore and Hong Kong, and this will be further discussed later. Achievement is actually a synonym for success in competition. In the international arena, the three societies are conscious of competing with their counterparts, thus "competence" is what they are striving for. Desire for prestige is actually the other side of the coin. Since Singapore's independence, it has been striving to establish its international prestige as a reliable economy, for its emergence as an independent state is only a recent event. Japan is of course anxious to build up its prestige especially after the war and the defeat in order to renew its image and to foster its self-confidence. Hong Kong needs prestige and competence to survive as it is mainly an export-orientated economy. Further, one of the major goals for obtaining international prestige is to increase their economic prosperity. And the increase in economic prosperity at the same time serves as a means of enhancing their international competence.

If conflict is "an endemic and omnipresent feature of human societies,"<sup>24</sup> there is no reason to imagine that the three societies can be immune from conflict. The three societies certainly do not suffer from the conflicts between black and white, however, there are records of strikes, riots and unrests in the last few decades. In Japan, the antagonism between Japanese Teachers' Union (JTU) and the government is well known. In Singapore, there was student unrest caused by disparity in language policy. And in Hong Kong, riots took place against the government in the sixties because of economic and political reasons. As Hong Kong is approaching the transfer of power in 1997, open conflicts become more obvious between groups of different political opinion.

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<sup>24</sup> Vago, *op. cit.*, p. 111.

In respect of polity, although the Democratic-Liberal party has dominated the government over the post-war period, the party has to be responsive to the needs of the people and remain open to criticism in order to win subsequent elections. Although the Hong Kong government is a colonial and an authoritarian one, it is open to criticism, and later analyses will show that some policies are formed or changed in response to criticism. Singapore is characterized by a one-party dominant government. As the government is trying to be a benevolent one, it always reviews its policies and aims at improving society especially in the direction of industrialization, modernization and international competence. On this account, the government takes the initiative in designing new policies.

Structural strains are a result of demographic imbalances and conflict of values and roles. Population expansion in the years following the end of the war has caused demographic imbalances in the three societies. The differences of values between the older generation and the younger generation are apparently creating tensions and conflicts. There is also ambiguity in role expectations especially towards women who are required as female labour in factories and are receiving more education than they were in the past.

As Japan, Singapore and Hong Kong all possess not only one but many elements that may stimulate social change, this explains not only why they are changing but also why they are changing rapidly. There are certainly different spheres of change in a society such as family, population, stratification, power relations, economy and education. As the present study is focused on education, changes in education will be discussed and examined in detail in the following chapter.

## CHAPTER EIGHT

### THE CHANGING EDUCATIONAL SCENE

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Edmund King holds that education in the modern world has experienced revolutionary changes. One of the most conspicuous changes is that education has become a public enterprise, and the state has assumed responsibility for its provision. As a result of the introduction of mass production and mechanized control to facilitate further developments, coupled with the “explosion of knowledge” in the modern world, there is a demand for the expansion of education.<sup>1</sup> At the same time, aspirations for education has been rising. Being “an educated man” has become increasingly a “normal” expectation or necessity in the modern world and is no longer regarded as distinctive, distinguished or exceptional as it was in the past:

It is not long since “an educated man” was something very distinctive - distinguished by accent, bearing, and human relationships no less than by his expectation that the world owed him a special kind of living. Now such suppositions cause irritation or mirth. Though we would not all call ourselves “educated” men and women, at least an educated person is not an eccentric.<sup>2</sup>

A review of the educational scene in Japan, Singapore and Hong Kong over the post-war period shows clearly that education is characterized by the expansion of aspirations and a corresponding expansion in provision by the governments. Moreover, a more detailed examination reveals not only a rapid quantitative expansion of school places but also rapid changes in educational policies. Among the numerous policies introduced in the respective societies, many are innovative and reformatory.

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<sup>1</sup> Edmund King, *Education and Social Change* (Oxford: Pergamon, 1966), pp. 21 & 32-34.

<sup>2</sup> *Ibid.*, p. 12.



## A. Expanding Aspirations for Education

All these societies have traditionally accorded high respect to education. With the introduction of such concepts as equality of educational opportunity, with the formation of the modern educational system which provides a nearly linear structure of primary-secondary-higher education that results in better prospects for jobs with higher pay and social status, and because of the growing prosperity of the three societies, there have been in the post-war period expanding aspirations for not only primary education but also education at higher levels.

In Japan, according to Ikeda's survey in 1966, 58 per cent of the Night College respondents preferred to work in a company which encouraged its people to spend time on education when off-duty.<sup>3</sup> According to the surveys conducted by the NHK (Japan Broadcasting Corporation) in 1962 and the Prime Minister's Office in 1963, education was a matter of public concern as great as or even greater than the problems of health and living. Almost all Japanese parents were eager to have their children receive education beyond the compulsory level, that is, the lower secondary level. The NHK survey showed that 52 per cent of the respondents placed education above other concerns such as health, living, business, and social and political issues. Eighty-five per cent of the 20-24 age group and 86 per cent of the 30-34 age group value education of any kind. Sixty-eight per cent of the parents wished their children to complete university education.<sup>4</sup> With reference to the rise of expectations for higher education among the Japanese populace over the past three decades, Kitamura reports that, according to opinion surveys, the proportion of the parents who wished their sons to receive higher education rose from about 22 per cent in 1951 to 50 per cent in 1964, and to 70 per cent in 1977.<sup>5</sup> It is no wonder that the number of applications for university entrance increased by 100,000

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<sup>3</sup> H. Ikeda, "College Aspiration and Career Perspectives among Japanese Student", *Comparative Education*, 5(2), Jun. 1969, 181.

<sup>4</sup> Kobayashi, *Society, Schools, and Progress in Japan*, pp. 107-109.

<sup>5</sup> K. Kitamura, "Mass Higher Education", in W. K. Cummings, I. Amano, and K. Kitamura, eds., *Changes in the Japanese University: A Comparative Perspective*, p. 68.

between 1958 and 1963.<sup>6</sup>

Singapore achieved a high school attendance rate at the primary level by the end of the sixties even without the introduction of compulsory education. Further, the number of aspirants for higher education has continued to grow. The applicants for entrance to the University of Singapore were 2,688 in 1969, the number rose to 3,351 in 1971, 4,990 in 1973, 5,700 in 1974.<sup>7</sup> Including applications for all state higher education, the applicants in 1975 amounted to 80,000.<sup>8</sup>

In Hong Kong, according to a survey conducted in 1969, a majority of students wished to attend university. Twenty-six per cent of the students were very committed, saying that they "very much want to attend a university" and another 34 per cent would like to attend. Moreover, 58 per cent of the pupils also perceived that their parents wanted them to attend university. The aspiration for university education was not confined to upper class families, as 74 per cent of those from blue collar and other lower class families wanted very much to attend university, although the proportion was higher (92 per cent) among pupils from upper class families.<sup>9</sup> Student enrolments in matriculation classes for entering universities or other higher institutions shows a rising trend. In 1977, the enrolment figure was 22,514. It rose to 27,825 in 1978 and further to 36,887 in 1985.<sup>10</sup>

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<sup>6</sup> Japan. Ministry of Education, *Higher Education in Post-war Japan: The Ministry of Education's 1964 White Paper*, ed. and trans. John E. Blewett (Tokyo: Sophia University Press, 1965), p. 118.

<sup>7</sup> Lim Chong Yah, *Education and National Development* (Singapore: Federal Publications, 1983), pp. 41 and 71.

<sup>8</sup> C. M. Seah and Soeratno Partoatmedjo, *Higher Education in the Changing Environment. Case Studies: Singapore and Indonesia* (Singapore: RIHED, 1979), p. 84.

<sup>9</sup> Robert Edward Mitchell, *Pupil, Parent, and School: A Hong Kong Study*. A Project of the Urban Family Life Survey, July 1969. (Taipei: The Orient Cultural Service, 1972), pp. 90-91.

<sup>10</sup> See *Education Department Annual Summary*, 1976-177, p. 40; 1977-78, p. 45; and 1984-85, p. 31.

## **B. Expansion in Educational Provision**

Faced with increasing demands for education, the three societies have made efforts to expand their educational capacity to include as many children as possible. Providing universal primary education is the goal for Hong Kong and Singapore. Both Hong Kong and Japan have achieved the provision of compulsory junior secondary education also. Whilst Hong Kong and Singapore have paid much attention to expanding the primary and secondary sectors, Japan has expanded higher education at an extraordinary rate.

### **1. Hong Kong**

In Hong Kong, rapid expansion of primary education took place in the fifties. The population explosion in the immediate post-war period was striking. The population increased from 600 thousand in 1945 to 2 million in 1950 and this led to an explosion in student population. In 1947, the total school enrolment was under 4,000. However it reached nearly 100,000 in 1947, 150,000 in 1950 and over 200,000 in 1953. Influenced by the principle of equality of educational opportunity, one of the main themes of educational development over this period was expanding the quantitative provision of schooling. Increasing numbers of "free places" and "half-free places" were provided in government schools and schools organized by voluntary bodies.<sup>11</sup> In 1951, a Five-Year Plan for the building of new government schools was approved, leading to extensive government school building programmes during the 1950s. At the peak of these efforts about 45,000 school places were added each year.<sup>12</sup> In the same year, the *Fisher Report* recommended the extension of free

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<sup>11</sup> Anthony Sweeting suggests that the emergence of the idea of equal educational opportunity was a result of the influence of the 1944 Education Act in the U.K., the possible effects of Japanese propaganda during the Occupation, and the uncertainty about the future of Hong Kong. See Anthony E. Sweeting, *The Social History of Education in Hong Kong: Notes and Sources* (Hong Kong: University of Hong Kong Faculty of Education), Chapter Seven.

<sup>12</sup> "Education at the Crossroads" in *Hong Kong 1984: A Review of 1983*, p. 1 and Fung Yee-Wang, "Education", p. 303.

school places in selected private schools, an annual increase of 30,000 places over the next seven years, and the provision of two hundred additional teacher training places by building a new training college.<sup>13</sup> By 1953, a Seven-Year Plan for building primary schools was accepted to create 26,000 additional places each year. The Plan was implemented in October 1954. However actions were taken to achieve an even faster rate of expansion than was planned. For example, the Plan was revised in 1957 to provide 33,000 new places a year, and the target of 215,000 additional places was achieved one year earlier in 1960. Consequently, in 1961, when the Seven-Year Plan officially ended, the government had provided a total of 318,000 additional primary school places, some 103,000 places more than the original target figure.<sup>14</sup>

With such an increase, the aim of providing a primary place for every child appeared to be realisable. However, the aim received a set-back with an unusually large influx of immigrants during the year, according to the 1962-63 Education Department Annual Report.<sup>15</sup> Fortunately, the under-19 age group did not continue to increase over the sixties and the seventies. It remained constant at about 1.8 million from the mid-sixties to the mid-seventies. This facilitated the expansion of school places at both primary and secondary levels.<sup>16</sup> A move towards free primary education was made in 1968 by reducing fees in government primary schools and introducing a scheme of textbooks and stationary grants for holders of free places in primary schools. Fees were further reduced in government and subsidized primary schools in 1969. By 1971, the goal of providing free primary education in all government and the majority of aided primary schools was realized. At the same time, the Director of Education was empowered to require parents to send their children to school.<sup>17</sup> As universal compulsory primary education was achieved, the

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<sup>13</sup> *Fisher Report*, excerpted in Sweeting, *op. cit.*

<sup>14</sup> See R. M. Marsh and J. R. Sampson, *1963 Report of the Education Commission (Marsh-Sampson Report)* (Hong Kong: Government Printer, 1963), p. 4 and Sweeting, *op. cit.*, Chapter Eight.

<sup>15</sup> Cited by Sweeting, *op. cit.*

<sup>16</sup> Sweeting, *op. cit.*, Chapter Nine.

<sup>17</sup> *Secondary Education in Hong Kong during the Next Decade* (1974 White Paper), p. 1 and Sweeting, *op. cit.*

government began to take steps to expand secondary education.

There had been some increase in secondary places before the 1970s but it had been relatively slow. In 1952, the proportion of free places in all government secondary schools was increased from 20 per cent to 30 per cent. By 1960, free places in government and aided secondary schools increased further to 45 per cent. Between 1961 and 1966, student enrolment increased from 106,477 to 222,890, a 109.3 per cent increase.<sup>18</sup> In 1966, the eighty per cent capital grant for aided secondary schools was introduced. In 1971, an interim goal of providing 50 per cent of the 12-14 age group with aided post-primary education by 1976, and from these, 18 to 20 per cent of the 12-16 age group with 5-year free places was approved.<sup>19</sup> In 1972, the Governor, Murray McLhose announced his intention fully to expand secondary and technical education over the next decade. A Green Paper entitled *Report of the Board of Education on the Proposed Expansion of Secondary School Education in Hong Kong over the Next Decade* was published. It proposed an ultimate goal of providing 3-year places, with government assistance, for all children in the 12-14 age group, and 5-year places, leading to a Certification of Education, in government and aided schools for 40 per cent of the 12-16 age group. It also proposed an interim target of providing 3-year places for 80 per cent of the 12-14 age group, and 5-year places for 36 per cent of the 12-16 age group by 1981.<sup>20</sup> The proposed pace of expansion was not deemed satisfactory by the Governor and it also aroused considerable public comment and criticism. Hence the White Paper, *Secondary Education in Hong Kong over the Next Decade*, announced the government's intention to provide, by 1979, nine years of subsidized education for every child, i.e. six years of primary education and three years of junior secondary education, and sufficient places in senior secondary forms in the public sector for 40 per cent of the 15-16 age group.<sup>21</sup>

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<sup>18</sup> See *Hong Kong 1961* and *Hong Kong 1966*, Tables of School Enrolment.

<sup>19</sup> *Secondary Education in Hong Kong during the Next Decade*, p. 1 and Sweeting, *op. cit.*

<sup>20</sup> *Report of the Board of Education on the Proposed Expansion of Secondary School Education in Hong Kong over the Next Decade* (1973 Green Paper), p. 11.

<sup>21</sup> *Secondary Education in Hong Kong over the Next Decade*, pp. 3-5.

In 1976, the Financial Secretary announced the government's intention to achieve the White Paper's target one year earlier, i.e. to provide subsidized Form One places for every Primary Six leaver in 1978. Moreover, to facilitate the expansion, 18 under-utilized government primary schools were converted into 16 new secondary schools, and other "interim" measures were adopted, such as classroom "floatation" and extended day operation and the buying of additional places in private schools.<sup>22</sup> In 1977, the Governor announced that junior secondary education would be made free and compulsory for every child as from September 1978, and the Director of Education was empowered to issue a school attendance order extending to all 12-13 year-old children.<sup>23</sup> All these attempts to achieve the proposed targets sooner indicate that the government was anxious to establish a secondary education system before the end of the seventies. At the conference in Karachi in 1962, the Asian countries attending agreed to introduce nine years of compulsory education. And Hong Kong was the first, after Japan, to realize this goal.<sup>24</sup>

Other areas of growth are also impressive. The existing three Colleges of Education were established within fifteen years after the war. One reopened in 1946, an additional one was established in 1952 and a third one in 1960. Among the five technical institutes established within the seventies, four were set up within five years between 1975 and 1980. Another two were established in 1986 and 1987 respectively. Tertiary education is expanding in the eighties, following the achievement of nine years of compulsory education. A second polytechnic was set up in 1982, and a third university was established in April 1988. It should be noted that the existence of two polytechnics and three universities is very remarkable in such a small place as Hong Kong.

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<sup>22</sup> *Education Department Annual Summary 1975-76*. Cited by Sweeting, *op. cit.* Classroom floatation refers to the optimized utilization of all the rooms available, so that a school may accommodate more classes than the classrooms designated for every class available.

<sup>23</sup> *Education Department Annual Summary 1977-78*, p. 1.

<sup>24</sup> Cheng Kai Ming, "A Review of Education in the Past Eleven Years" (in Chinese), *Hong Kong Economics Journal Monthly*, 6(3), 1982, 12.

## 2. Singapore

Immediately after the war, the “Ten-Year Programme for Education Policy in the Colony of Singapore” was adopted in 1947 by the Advisory Council. Among of the goals to be achieved as proposed in the Ten-Year Programme was the provision of universal and free primary education and the development of secondary, vocational and higher education. The ideal of universal and free primary education for six years was described as “the most extensive change in educational policy proposed”.<sup>25</sup> Along with the Ten-Year Programme, the Supplementary Five-Year Programme accelerated the provision of free primary English education which was to be achieved by 1949.<sup>26</sup> The 1956 White Paper on Education again identified the provision of free and universal primary education as the first priority. In 1957, faced with the growing demand for education, an extensive school building programme was launched and double-session schooling was inaugurated to accommodate more pupils.

In 1959, after the PAP assumed office, after vigorous changes took place. The school building programme which had been frozen was resumed by the Minister of Education. Schools were built on a massive scale. The most rapid expansion took place during 1962-1967, approximately at a rate of a building per month. As a result, from 1959 to 1967, a total of 131 schools (84 primary schools and 47 secondary schools) was built.<sup>27</sup> At the same time, student enrolment vastly increased. Between 1959 and 1968, the number grew by 20,000 to 30,000 a year.<sup>28</sup> At the primary level, it rose from 287 thousand in 1960 to 375 thousand in 1968. As a result of the efforts to increase school places, Singapore was able to achieve a high percentage of school attendance by the end of the sixties. The school attendance rate reached 75.7 per cent in 1969. Because of the success of family planning, the

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<sup>25</sup> Cited by Doraisamy, ed., *op. cit.*, p. 47.

<sup>26</sup> *Ibid.*, p. 48.

<sup>27</sup> Ruth Wong, *op. cit.*, pp. 2 & 6-7 and Murray Thomas, K. L. Goh and R. W. Mosbergen, “Singapore”, in T. Neville Postlethwaite and R. Murray Thomas, eds., *Schooling in the Asean Region* (Oxford: Pergamon, 1980), p. 198.

<sup>28</sup> Thomas, Goh and Mosbergen, *op. cit.*, p. 199.

student population remained constant in the early seventies and began to decline afterwards, resulting a fall to 299 thousand in 1980 and 269 thousand in 1986. This enabled the school attendance rate to be further increased to 84.5 per cent in 1979. Hence, even without compulsory education, primary education has become practically universal.<sup>29</sup>

Student enrolment at the secondary and the tertiary levels also increased considerably. At the secondary level, only 59 thousand pupils were enrolled in schools in 1960, but the figure rose to 150 thousand in 1968, i.e. nearly a three-fold expansion over eight years. In 1977, the figure at 178 thousand and in 1986 it rose to 203 thousand. The school attendance rate reached 44.3 per cent in 1969 and further rose to 53.5 per cent in 1979.<sup>30</sup> The increase of enrolment at the higher education level is also impressive. In 1962, the enrolment figure was 10 thousand, it rose to 20 thousand in 1976, 31 thousand in 1983 and 42 thousand in 1986. It is clear that the most rapid expansion of higher education has taken place in the eighties, as in the case of Hong Kong.<sup>31</sup>

### 3. Japan

Whilst Hong Kong and Singapore concentrated their efforts on the expansion of primary and secondary education during the post-war period, Japan's educational expansion has been centred on the secondary and higher levels. As the policy of modernization started in the nineteenth century, the efforts to provide primary education for all began long before the war. School attendance rose from 28 per cent in 1873 to over 50 per cent in 1883. It had already exceeded 96 per cent

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<sup>29</sup> C. M. Seah and Linda Seah, "Education Reform and National Integration", in Peter S. J. Chen, ed., *Singapore: Development Policies and Trends*, p. 245; and *Yearbook and Statistics: Singapore 1986* (Singapore: Department of Statistics, 1986), p. 246.

<sup>30</sup> Seah and Seah, *op. cit.*

<sup>31</sup> See Stephen H. K. Yeh, "Trends and Issues in Social Development" in You Poh Seng and Lim Chong Yah, eds., *The Singapore Economy* (Singapore: Eastern Universities Press, 1971), p. 270, Table 1; Seah and Seah, *op. cit.*, p. 260.



by 1906. In 1907, compulsory education was extended to six years, and school attendance reached 98 per cent by that year. The expansion of primary education to the universal and compulsory level was achieved thirty years before the war.<sup>32</sup>

In respect of secondary education, there were places for only 4.3 per cent of the relevant age group in 1905. However within ten years, the percentage rose to 19.9 in 1915. It further went up to 32.3 per cent in 1925 and 39.7 per cent in 1935. After the war in 1947, Japan succeeded in enrolling 61.7 per cent of the children of the relevant age group. The percentage further rose to 78 in 1955. It reached 84 per cent in 1965. By the mid-seventies, secondary schooling became virtually universal and it reached 95.9 per cent in 1975.<sup>33</sup> As Japan's secondary education is divided into upper and lower secondary schooling, the above figures indicate that an increasing proportion of lower secondary school leavers proceed to upper secondary schooling, and nearly all advanced towards the latter by the mid-seventies. In 1951, 46 per cent moved to upper secondary schools. The percentage rose to 64 in 1962 and further to 85 in 1970.<sup>34</sup>

With the rapid expansion of secondary education, increased demand for higher education followed. For example, upper secondary school graduates rose from 444 thousand to 731 thousand between 1951 and 1975, a 22.2 per cent increase within six years.<sup>35</sup> Before the war, higher education enrolment only comprised 1 per cent and 3 per cent of the appropriate age group in 1915 and 1935 respectively. It increased rapidly after the war, from 8.8 per cent in 1955 to 14.6 per cent in 1966, and it further rose to 30.3 per cent in 1975 and 33.5 per cent in 1980.<sup>36</sup> Japan thus ranks second in the world for the highest rate of enrolment in higher education, exceeded

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<sup>32</sup> *Japan's Growth and Education: Educational Development in Relation to Socio-Economic Growth*, 1962 White Paper on Education (Tokyo: Ministry of Education, 1963), p. 30.

<sup>33</sup> Japan. Ministry of Education, *Education in Japan: A Graphic Presentation*, revised edition (Tokyo: The Ministry, 1983), p. 18.

<sup>34</sup> Kobayashi, *Society, Schools and Progress in Japan*, pp. 131-132.

<sup>35</sup> Japan. Ministry of Education, *Higher Education in Post-war Japan: The Ministry of Education's 1964 White Paper*, p. 118.

<sup>36</sup> Japan. Ministry of Education, *Education in Japan*, p. 18.

only by the United States.<sup>37</sup> While the number of higher education institutions grew only from 84 in 1905 to 308 in 1935, the growth in the post-war period has been phenomenal. It rose to 492 in 1955, 525 in 1960, 934 in 1970 and 974 in 1981.<sup>38</sup> During the sixties, the increase in the number of higher institutions was nearly two-fold. This means the establishment of 409 institutes in ten years or an average of 34 institutes a year. In respect of the enrolment, the number of students increased from 700 thousand in 1960 to 2.1 million in 1976 - a three-fold increase.<sup>39</sup>

### **C. Changes in Educational Policies**

One way to study rapid changes in the educational scene is to look at the educational innovations that have taken place in the respective societies. In this respect, all the the three societies have remarkable records of educational reform since the war.

#### **1. Japan**

Japan's education has undergone many major reforms since the Meiji modernization. The modern educational system was established with the First Educational Reform, which took place in 1872 under the Fundamental Code of Education as a part of the modernization policy. Patterned on the French model, besides centralizing control over education, the new educational system aimed at a high degree of standardization. Under the new school system, there were three stages of education: primary school, middle school and university. Shortly afterwards, the aim of four

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<sup>37</sup> The rate of enrolment in the United States was 58 per cent in 1981. See *Facts and Figures of Japan* (Tokyo: Foreign Press Centre, 1985), p. 88.

<sup>38</sup> This was achieved mainly as a result of the integration of universities and junior colleges and the contribution of the private sector.

<sup>39</sup> Kazuyuki Kitamura, "Mass Higher Education" in Cummings, Amano and Kitamura, eds., *op. cit.*, p. 69; Aso and Amano, *op. cit.*, p. 77; and *Japan's Growth and Education*, p. 51.

years of compulsory primary education was successfully achieved. In 1900, 91 per cent of boys and 72 per cent of girls of primary school age were enrolled in schools. By 1907, the period of compulsory education was extended to six years. From this time until the introduction of the postwar reforms, the basic system remained unchanged.<sup>40</sup> Generally speaking, Japan's pre-war educational system was characterized by a multi-track structure. Pupils could continue education by different tracks beyond compulsory education, such as the academic track, the normal school track, the technical track, the youth track, or the girls track. The existence of the multi-track system inevitably led to inequalities of educational opportunity based on sex, residence, wealth and other factors, making the system an elite-fostering one, although all pupils were provided with six years of compulsory education and those who wished to pursue education beyond the compulsory level could find some sort of accommodation.<sup>41</sup>

The conclusion of World War II marked the initiation of the Second Educational Reform. During the period of occupation, 1945-1952, Japan's education underwent a radical change. The Supreme Commander for the Allied Powers issued a directive to the Japanese government concerning the demilitarization and democratization of all aspects of government and life including education. In March 1946, a United States Education Mission was invited to visit Japan to advise on measures for educational reform. In April, the Mission submitted a policy guide to the occupation authority and the Japanese government. In the main, the guiding principles of the educational reform were democracy, freedom, decentralization, mass education, diversity and internationalism in place of fascism, control, centralization, elite education, uniformity and parochial nationalism. More specifically, they advised a complete reform of education - education goals were to be liberalism and individualism, and the curriculum was to be revised to meet such a change. They also recommended the adoption of *Roma-ji* (Romanization) for the Japanese

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<sup>40</sup> Cowen and McLean, *International Handbook of Education Systems*, p. 243.

<sup>41</sup> Ronald S. Anderson, *Education in Japan: A Century of Modern Development* (Washington, D.C.: United States Department of Health, Education and Welfare, National Institute of Education, 1975), pp. 41, 52 & 58.

language, the decentralization of educational administration, the establishment of publicly elected education commissions, the adoption of a single-track schooling system, a uniform teaching method and a drastic reform of the teacher training system.<sup>42</sup> The switchover of educational principles from control to freedom and from centralization to decentralization was a radical one for the Japanese, as Aso and Amano commented.<sup>43</sup> However, Japan was co-operative towards all this advice. In March 1947, the first and most important post-war legislation on education, the Fundamental Law of Education, was promulgated, replacing the 1890 Imperial Rescript on Education. The main features of Japan's post-war educational system were established by this law:

As the initial reactor for a chain for reforms, the Fundamental Law of Education brought about the decentralization of public education, the establishment of the 6-3-3-4 school system, reorientation of curricula, courses of study, textbooks and teaching methods, and total reorganization of educational administration in this country.<sup>44</sup>

In addition to the Fundamental Law, the Education Commission Law was promulgated in 1948, the Social Education Law and the Private School Law were promulgated in 1949. Moreover, throughout the fifties and the sixties, there were continuous changes and the founding of new institutions in the field of education. For example, the year 1950 saw the inauguration of junior colleges. In 1951, the Course of Study for Lower Secondary Schools was first revised. In 1952, the Central Council for Education was established and the Law for State Subsidization of Compulsory Education Costs was promulgated. In 1953, the establishment of a postgraduate course in universities was authorized. In 1954 the School Lunch Law was promulgated. In the 1956, the Law Concerning the Organization and Operation of Local Educational Administration was promulgated, making Education commis-

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<sup>42</sup> *Report of the United States Mission to Japan*, U. S. Department of State Publication, Far Eastern Series II (Washington, D.C.: U.S. Government Printing Office, 1946). Cited by Aso and Amano, *Education and Japan's Modernization* (Tokyo: The Times Ltd., 1983), pp. 62-63.

<sup>43</sup> Aso and Amano, *op. cit.*, p. 71.

<sup>44</sup> Japan. Ministry of Education, *Education in Japan: A Graphic Presentation* (Tokyo: The Ministry, 1969), p. 16.

sion members nominated. In 1958, the Course of Study for Primary Schools was first revised. In 1960, the Course of Study for Upper Secondary Schools was issued, and came into effect in 1963. In 1961, the School Education Law was partially revised to provide for the establishment of five-year higher professional schools. Many events took place in the year of 1962. The Law concerning Free Distribution of Textbooks for Compulsory Education Schools was promulgated. Technical colleges were established. The second revision of the Course of Study for Lower Secondary Schools took effect. In 1965, the Central Council for Education published its interim report on "Ideal Image of Man". In 1968, the agency for Cultural Affairs was inaugurated. The Courses of Study for Primary Schools and Lower Secondary Schools were again revised in 1968 and 1969 respectively.<sup>45</sup>

The Third Educational Reform followed the submission of the Central Council for Education's report, *Basic Guidelines for the Reform of Education*, to the Minister of Education in 1971. The Council began its study of Japan's educational system in 1967 as requested by the Minister of Education, Toshihiro Kennoki. The report called for a quantitative expansion of education, equal opportunity for education, the improvement of the quality of education to meet a variety of social needs, and the remodelling of the structure of education. Some of the proposals were as follows:

1. the standardization of school curricula from the primary to the upper secondary school levels,
2. the adoption of modern teaching methods, such as group teaching, individualized teaching and mixed ability teaching,
3. diversification of the curricula of the upper secondary schools to enable students to choose courses suited to their particular abilities and interests,
4. the separation of the teaching and research functions in higher education,
5. the rationalization of the administrative and managerial structure of higher education,

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<sup>45</sup> Aso and Amano, *op. cit.*, pp. 104-105 and Kobayashi, *Society, Schools and Progress in Japan*, pp. 128-132.

6. the facilitation of movement between universities for teaching staff, and
7. the improvement of student welfare and environment.

Further, it proposed the reform of higher education by setting up five categories of institutions for higher education, namely university, junior college, technical college, graduate school, and research centre. These proposals became the guidelines for educational reforms in the 1970s.<sup>46</sup>

As a result, in 1972, the Division of Kindergarten was established in the Ministry of Education and the Ten Year Plan for the Promotion of Kindergarten Education was launched.<sup>47</sup> In the same year, the Minister of Education ordered the examination of the Course of Study.<sup>48</sup> The Ad Hoc Committee for Higher Education was established in the Ministry of Education, and in 1976, it submitted its higher educational plan for the period 1975-1980. The committee advocated a moderate expansion of enrolments, to be achieved mainly through the establishment and improvement of national universities rather than through increases in the private sector.<sup>49</sup> In 1977, the Courses of Study for Primary and Lower Secondary Schools were again revised. The revision of the Course of Study for Upper Secondary Schools took place in 1978.<sup>50</sup> In 1979, special education for the severely physically and mentally handicapped was made compulsory.<sup>51</sup>

In 1980, 1981 and 1982 respectively, the revised Courses of Study for Primary, Lower Secondary and Upper Secondary Schools were put into effect. In 1981, the

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<sup>46</sup> Central Council for Education, *Basic Guidelines for the Reform of Education* (Tokyo: Ministry of Education, 1972). See also "Educational Development in Japan, 1960-1970", *Bulletin of the Unesco Regional Office for Education in Asia*, 6(2), March 1972, 86-87.

<sup>47</sup> Yutaka Okihara, "The Progress of Educational Reforms since the Meiji Restoration", *Education in Japan: Journal for Overseas*, 8, 1975, 18.

<sup>48</sup> Hitoyasu Kimura, "The Reform of Primary Education", *Education in Japan: Journal for Overseas*, 8, 1975, 37.

<sup>49</sup> Kitamura, "Mass Higher Education", *op. cit.*, p. 75.

<sup>50</sup> Ministry of Foreign Affairs, *Facts about Japan: Educational System* (Tokyo: The Ministry, 1985), p. 3.

<sup>51</sup> Aso and Amano, *op. cit.*, p. 106.

Central Council for Education submitted its "Recommendation on Lifelong Education" to the Minister of Education. In 1984, the government set up an Ad Hoc Council for Educational Reform (which was later renamed National Council on Educational Reform) as a matter of urgency to re-examine its policies and measures relating to education. And this move may have prompted the Fourth Educational Reform in Japan. The Council consists of 25 members and will terminate its work within three years. In 1985, it submitted its first report to the Prime Minister, Y. Nakasone. In this report eight principal objectives were presented:

1. emphasis on individuality,
2. emphasis on basics,
3. fostering of creativity and independent thought and expression,
4. greater opportunity for choice in education,
5. cultivation of a more sympathetic educational environment,
6. lifelong learning,
7. internationalization, and
8. adjustment to the information society.<sup>52</sup>

After the submission of its first report, the Council continued its deliberations on the major issues defined in the first report, and it submitted its second report in 1986. In the second report, the Council identified the causes of the present "state of desolation" in education and set forth its view of the basic direction of education for the 21st century. They urged a basic and comprehensive reorganization of the educational system, suggested a basic strategy for educational reform involving families, schools and society as a whole which would ensure the transition to a lifelong learning system. Moreover, it is noteworthy that the Council devoted a chapter to change. Taking note of the major changes anticipated in this century and the next, it recommended a number of reforms concerning specific issues in education, so that changes in the educational system will be compatible with the

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<sup>52</sup> Ad Hoc Council on Education, "Individuality Encouraged in Proposed Reform of Japan's Education System: Summary of the First Report", *Japan Education Journal* (Special Issue: Education), (27), 1986, 11. See also Stuart D. B. Picken, "Two Tasks of the Ad Hoc Council for Educational Reform in Socio-Cultural Perspective", *Comparative Education*, 22(1), 1986, 59-64.

social changes and cultural development of Japan and relevant to the 21st century.<sup>53</sup>

## 2. Singapore

The period 1819-1867 marked the initiation of formal education in Singapore.<sup>54</sup> In 1810, when Thomas Stamford Raffles took possession of Singapore for the British East India Company, he at the same time proposed the establishment of a school. Raffles laid the foundation-stone for his "institution" in 1823, but the institution was not put into operation because of his return to England. In 1834, the Rev. Darragh, an Anglican Clergyman, established the Singapore Free School. It was called a "Free School" because it admitted all children regardless of race or creed. It was the first time that Singapore had had a school for Chinese, Malay, Tamil and English-speaking children. The Free School was renamed the "Raffles Institution" in 1868, but it gradually evolved into an English-speaking primary school. At that time, the provision of "vernacular" education was largely neglected.<sup>55</sup> During the years 1867-1942 there was some expansion in education. Prior to 1867, schools were mainly run by Christian missions and local communities, but the government in this period operated a few English-speaking primary and secondary schools. In 1872, the Department of Education was established.<sup>56</sup> In 1874, the grant-in-aid system was introduced.<sup>57</sup> In 1900, kindergartens were established. In 1909, the Educa-

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<sup>53</sup> National Council on Educational Reform, *Summary of Second Report on Educational Reform* (Tokyo: The Council, 1986). For an outline of the establishment of the Council and the two reports, see *National Council on Educational Reform* (Tokyo: The Council, 1986).

<sup>54</sup> Before the advent of the Europeans there was no formal schooling, except for occasional Koran classes and Chinese writing schools. See T. R. Doraisamy, ed., *150 Years of Education in Singapore* (Singapore: Teacher's Training College, 1969), p. 6.

<sup>55</sup> *Ibid.*, pp. 6-9 and 18-23.

<sup>56</sup> Francis Wong Hoy-Kee and Gwee Yee Hean, *Perspective: The Development of Education in Malaysia and Singapore* (Kuala Lumpur: Heinemann Educational Books Ltd., 1972), p. 78.

<sup>57</sup> Under the system of "grants by examination results", two-thirds of government grants were given according to good examination results. Under the "grants by classification" system, grants were given according to general efficiency rather than on individual passes, and the English teaching was emphasized. Under the "payment by estimates" system, the government made up the difference between the revenue accruing from fees and other sources and the approved expenditure of a school. See Doraisamy, ed., *op. cit.*, pp. 27-28.



tion Board was established to assist in the control of money spent for educational purposes. In 1902, the Registration of Schools ordinance was enacted. The first Government Trade School was established in 1929, as a result of the recommendations of the Winstedt Committee Report. As a result of the recommendations of the Cheeseman Committee Report, vocational education was provided and science was introduced in the secondary school curriculum in 1938. In the main, two branches of education were developed: the English school system and the "vernacular" school system. The English-speaking schools provided primary and secondary education, and prepared students for admission to higher education. Emphasis was placed on the development of this type of school, as 90 per cent of the government grants were allocated to the government-aided English-speaking schools. Separate Malay, Chinese, and Indian "vernacular" schools also came into being. Except for a few Chinese middle schools, most of them provided education only at primary level.<sup>58</sup>

Whilst education developed only slowly before the war, Singapore's post-war educational scene is characterized by the rapidity of change. Concerning this, Y. H. Gwee states:

One outstanding characteristic of post-war Singapore is the rapidity of change, particularly evident in the socio-economic-political front. Education, by its very nature, must be responsive to, if not itself the instrument of, change: thus we find the last three decades an exciting period where one wave of sweeping educational change was succeeded by another, the interval between which corresponded roughly to a decade.<sup>59</sup>

The foundations of Singapore's modern educational system were laid during 1945-1959. In response to the growing demand for education, there evolved two major proposals which have shaped Singapore's educational system throughout the last three decades. The first one was the Ten-Year Programme, which was issued in 1947 and was further supplemented by a Five-Year Plan. The Ten-Year Programme

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<sup>58</sup> *Ibid.*, pp. 27-44.

<sup>59</sup> Gwee Yee Hean, "The Changing Educational Scene", in Seah Chee Meow, ed., *Trends in Singapore: Proceedings and Background Paper* (Singapore: Institute of Southeast Asian Studies, 1975), p. 87.

marked the first attempt in Singapore to relate educational policies to clearly defined aims.<sup>60</sup> The Programme stated that education should aim at fostering and extending the capacity for self-government and cultivating civic loyalty and responsibility, and that equal educational opportunity should be achieved.<sup>61</sup> It thereby led to the suggestion that free primary education should be provided for children of both sexes and all races, followed by secondary and higher education appropriate to the needs of the colony. The Supplementary Five-Year Plan was implemented to accelerate the pace of educational development. The Plan revived teacher training, and the Teacher's Training College was established in 1950.<sup>62</sup> The second major proposal was the All-Party Committee Report, which was submitted to the government in 1956 by the All-Party Committee on Chinese Education, formed as a result of the Chinese student unrest in 1955. The Report was regarded as the most significant landmark in the development of a national system.<sup>63</sup> It called for equal treatment of the four language streams in education. These were Malay, Chinese, English and Tamil. It advocated bilingual and even trilingual education, the adoption of Malayan-centred common curricula and syllabuses for all schools, the teaching of ethics, and a single Education Ordinance for all schools. The government in response published a White Paper on Education Policy in 1956, which embodied the main principles and goals suggested by the Ten-Year Programme and the All-Party Report.

In 1957, a new Education Ordinance was passed, whereby the full grant-in-aid system was extended to all schools which met the prescribed conditions. To accommodate as many children in schools as possible, double-session schooling was inaugurated in the same year. The Singapore Polytechnic was established in 1954 and changes were made in 1959 to link it more closely to the manpower needs of the

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<sup>60</sup> Saravanan Gopinathan, *Towards a National System of Education in Singapore* (Singapore: Oxford University Press, 1974), p. 7.

<sup>61</sup> Singapore Department of Education, *Ten Years Programme* (Singapore: the Department, 1949), p. 1.

<sup>62</sup> Thomas, Goh and Mosbergen, *op. cit.*, p. 196.

<sup>63</sup> Gopinathan, *op. cit.*, p. 19.

government's industrialization programmes. Also, in 1959, legislative recognition was given to the Nanyan University.<sup>64</sup>

The sixties was a decade of dynamic action in education.<sup>65</sup> In 1959, the newly elected People's Action Party took office as the Singapore government. The PAP government made a clear policy of relating the educational system to Singapore's political and social needs, and they endorsed the views of the previous All-Party Committee Report. The 1959 Education Report advocated a tripartite policy of equality (equal treatment for all the four languages), unity (the adoption of Malay as the National Language) and relevance (an emphasis on technical and scientific education to meet the needs of an industrial society).<sup>66</sup> In the same year, the Educational Advisory Council was set up. The *Report of the Commission of Inquiry into Vocational and Technical Education in Singapore* was published in 1961, and the secondary school system was restructured to include secondary vocational schools, vocational institutes, secondary technical schools and secondary commercial schools.<sup>67</sup> New common syllabuses for all traditional school subjects were published in the four language-media in 1961, and common syllabuses became available for the newer technical subjects at secondary level in 1964. In 1962, the University of Singapore was established based on the Singapore division of the University of Malaya. The common education system was formally established in 1963, leading to a 6-4-2 pattern, i.e. 6 year's primary, 4 years' secondary, and 2 years' pre-university education. In the same year, the Ngee Ann College was established to provide technical training at post-secondary level for Chinese-speaking secondary school leavers. Free primary education had been provided only for those of the correct age for their classes during the period 1960- 1962, but after 1963, it was extended to all

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<sup>64</sup> Doraisamy, ed., *op. cit.*, pp. 50-55; Ruth H. K. Wong, *Educational Innovation in Singapore: Experiments and Innovations in Education* (Paris: Unesco, 1974), p. 1; and Singapore. Ministry of Education, *Education in Singapore*, pp. 4-5.

<sup>65</sup> Wong, *op. cit.*

<sup>66</sup> Singapore. Ministry of Education, *Annual Report 1959* (Singapore: Government Printing Office, 1961), p.1. Cited by Ruth Wong, *op. cit.*, p. 7.

<sup>67</sup> Chan Chieu Kiat et al., *Report of the Commission of Inquiry into Vocational and Technical Education in Singapore* (Singapore: Government Printer, 1961), p. 40.

children in the correct age group (6-8 years) at the time of admission. And the extension of free universal primary education to six years was achieved well before the the end of the decade. Moreover, in 1968, the National Industrial Training Council was established and the Technical Education Department was formed within the Ministry of Education. The Singapore Polytechnic was greatly expanded and the Ngee Ann Technical College was converted into an institution of polytechnic nature. Plans were made for the addition of a technical wing to the Teachers' Training College. In 1969, a comprehensive training and re-training scheme was introduced and the first Junior College was established. In the same year, a new common curriculum for the first two years of the secondary school course was introduced for Secondary 1 classes. Also, an Advisory Committee for Curriculum Development was established.<sup>68</sup>

Further changes took place in the seventies. In 1970, an aptitude test for Secondary 2 pupils was introduced as an additional means of channelling pupils into the technical stream. Prior to the seventies, examinations for the pupils of various language streams were not standardized and school leavers from different streams sat for different examinations. In 1971 these examinations were standardized, all Secondary 4 pupils took the Cambridge "O" level examinations after ten years of schooling and those proceeding to pre-university education would take the Cambridge "A" level examinations after two years of further studies. In 1973, the Industrial Training Board (ITB) was established to centralize, co-ordinate and strengthen industrial training programmes. In the same year, the Institute of Education was established. In 1976, the Revised Primary Education System (RPES) was introduced. Pupils who had repeated a grade twice would be channelled into the Basic Course (as distinct from the Standard Course) for learning basic literacy and numeracy skills. They would then join the Junior Training Scheme for three

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<sup>68</sup> Goh Keng Swee et al., *Report on the Ministry of Education 1978 (Goh Report)* (Singapore: Ministry of Education, 1979), p. 2.1; Ruth Wong, *op. cit.*, pp. 6-12; Singapore Undergrad Research Team, "A History of Education in Singapore", in NUS students' Union, *Education in Singapore*, Special Issue of *Singapore Undergrad*, (Singapore: Singapore Undergrad, 1979), p. 9; and Singapore. Ministry of Education, *op. cit.*

years and work as junior trainees in industries. In 1978, the Revised Secondary Education System (RSES) was introduced. Pupils after two retentions were channelled to work-orientated vocational courses organized by the ITB and AEB which were reorganized into the Vocational and industrial Training Board (VITB) in 1979. The Joint Campus Scheme was introduced in 1978. All first year undergraduates of the Nanyang University and the University of Singapore were to follow common syllabuses, lectures, tutorials and examinations at the "joint campus" at Bukit Timah. In the same year, the *Goh Report* was published, which led to fundamental changes in the educational system in 1980. In 1979, the Special Assistance Plan was introduced, providing a special course for pupils in selected Chinese secondary schools to study two languages, both at the first language level. In the same year, pre-university streaming into 2-year courses at Junior Colleges and 3-year courses at pre-university centres in schools was announced.<sup>69</sup>

Although Singapore had already established a modern educational system between the fifties and the seventies, its dynamism of educational innovations has not faded. In fact, more fundamental changes and further expansion have occurred in the eighties. A number of significant events took place in 1980. The most distinctive one was the introduction of the 1980 New Education System (NES), based on the recommendation of the *Goh Report*. On the results of a school-based examination at the end of primary three, primary pupils will be streamed into the Normal Bilingual (N), the Extended Bilingual (E), or the vocational-orientated Monolingual (M) course. At the secondary level, pupils are streamed into the Special Bilingual (S), the Express Bilingual (E) or the Normal Bilingual (N) course based on their PSLE results. Another event in 1980 was the merger of the University of Singapore and the Nanyang University into the National University of Singapore. In the same year, the Curriculum Development Institute of Singapore (CDIS) was set up to innovate and develop teaching materials. In 1981, the Schools Council was established, the VITB Instructor Training Centre was set up, and the Nanyang Technological Insti-

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<sup>69</sup> Singapore Undergrad Research Team, *op. cit.*, pp. 9-10; *Singapore 1983*, pp. 188-190; and *Goh Report*, pp. 2.1 to 2.4.

tute was inaugurated. In 1982, the Ngee Ann Technical College was converted into the Ngee Ann Polytechnic. A five-year programmed of expansion and upgrading for the Singapore Polytechnic was launched. In 1984, the College of Physical Education was established.<sup>70</sup>

### 3. Hong Kong

As in Singapore, the first schools in Hong Kong were mainly missionary institutions, operated on the British model with English as the principal medium of instruction.<sup>71</sup> However, the government began early to take positive moves in educational provision. Over the period 1841-1859, 13 government schools and 4 missionary schools (2 Protestant and 2 Roman Catholic) were established. The period 1860-1877 witnessed government attempts to control education. In 1860 a Board of Education was established. In 1872, government grants were extended to missionary schools, provided that no religious instruction was given during four consecutive working hours each day.<sup>72</sup> During 1878-1900, English education was strongly promoted. In 1866, English had already become a compulsory subject in the Central School. In 1877, following the arrival of the new Governor, Hennessy, English language education was further reinforced to meet the needs of the political and commercial sectors of the Colony. In 1878, only 19 per cent of the students in government and aided schools received English medium education, but those receiving English education had increased to 40 per cent by 1898.<sup>73</sup> Since then,

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<sup>70</sup> Ng Poy Siong, ed., *Singapore Facts and Pictures 1987* (Singapore: Information Division, Ministry of Communications and Information, 1987), pp. 79-96 and *Singapore 1983*, pp. 184-203.

<sup>71</sup> Although there were some Chinese tutors offering some sort of education in the traditional ways, organized Chinese schools operated in the modernized Chinese educational pattern did not occur until the early twentieth century. See Cho-Yee To, "The Development of Higher Education in Hong Kong", *Comparative Education Review*, 9(1), 1956, 74.

<sup>72</sup> E. Burney, *Report on Education in Hong Kong* (Hong Kong: Government Printer, 1935), pp. 5-6.

<sup>73</sup> A committee was set up in 1880 to study the reinforcement of English medium education in the Central School and the conversion of the School into a higher institute. The Committee Report of 1882 disagreed with the proposed policy. Instead they suggested that the government should place emphasis on general education. However, despite the objection of the committee, Hennessy

English language education has been given the main emphasis by the government, while “vernacular” education has been largely in the hands of private schools.<sup>74</sup> From the beginning of the twentieth century to the forties, a clear expansion and vernacularization of education can be seen. A Technical Institute was established in 1907. The University of Hong Kong was legally established in 1911 and was inaugurated in 1912,<sup>75</sup> A Vernacular Normal School for women was opened in 1921, and another for men in 1926, both as teacher training institutes; the The Junior Technical School was set up and the School Certificate Examination was introduced in 1933.<sup>76</sup> In 1935, the *Burney Report* was published. It heavily criticized the government for the low priority which was given to primary “vernacular” education and its emphasis on providing education for upper class children. The report suggested that education policy should be reorientated “to secure for the pupils, first, a command of their own language sufficient for all needs of thought and expression, and secondly, a command of English limited to the satisfaction of vocational demands.”<sup>77</sup> Unfortunately, the government’s plans to implement the report’s suggestions were interrupted by the outbreak of the War in the Pacific.<sup>78</sup>

Hong Kong’s post-war educational scene has also been characterized by rapid change. The years 1945-1949 were mainly devoted to “reconstruction” and “rehabilitation”. Many schools were re-opened in 1945. In 1946, the Northcote Training College was re-opened. In 1948, the Junior Technical School was re-opened and the Standing Committee on Textbooks was revived.<sup>79</sup> In the fifties, alongside the ex-

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continued his policy on English education. See *ibid.*, p. 39.

<sup>74</sup> “The system of education in Hong Kong in the past has tended to direct government aid towards education in English, particularly at the secondary level. Primary education in the vernacular has, therefore, been largely in the hands of private schools.” See *Hong Kong Education Department Annual Report 1946-7* (Hong Kong: Government Printer, 1947), p. 30.

<sup>75</sup> To, *op. cit.*, p. 75.

<sup>76</sup> Burney, *op. cit.*

<sup>77</sup> Burney, *op. cit.*

<sup>78</sup> T. J. Downey, “English or Chinese? The Medium of Instruction in Hong Kong”, *Compare*, 7(1), 1977, 68.

<sup>79</sup> Anthony Sweeting, *The Social History of Hong Kong: Notes and Sources* (Hong Kong: HKU Advanced Dip. Ed. Lecture Notes, 1986). Unless otherwise stated, the following analysis will be based on the data in Sweeting’s work.

pansion of primary education and teacher training, there were other major changes in the educational system. The year 1951 was particularly eventful. The *Fisher Report* was published, recommending the expansion of primary education and teacher training facilities. Also, a five-year plan for the building of new government schools was approved.<sup>80</sup> In the same year, the *Keswick Report* on Higher Education was published, leading to the establishment of the Chinese University of Hong Kong. Moreover, a clear separation was made between primary and secondary schooling and a Joint Primary 6 examination was proposed. In 1952, a New Education Ordinance was enacted to empower the Director of Education to keep registers of schools and to refuse registration to those he considered unsuitable. In 1953, the Ho Tung Technical School for Girls was opened. In 1954, a seven-year policy of expansion was launched to provide a place for every child of primary school age.<sup>81</sup> In the same year, the Grantham Training College was inaugurated. In 1959, new government grant regulations were issued to allow government grants to be extended to three Post-Secondary Day Colleges, and the Post-Secondary Ordinance was enacted. Moreover, an additional six-year courses was organized by the Education Department at the Evening Institute for those who had failed to gain admission to School Certificate courses in day schools.

Further modifications to the educational system were made in the sixties. In 1960, new forms of aid were introduced for non-profit-making private schools, and the Post-Secondary Colleges Ordinance was enacted. In 1961, the Sir Robert Black Training College was inaugurated. In 1962, the Joint Primary 6 Examination was renamed the Secondary School Entrance Examination (SSEE). Five Secondary Modern Schools were converted into Secondary Technical Schools. Moreover, a Statement of Government Policy on the Reorganization of the Structure of Primary and Secondary Schools was tabled in the Legislative Council. As a result, in 1963, the government decided to change the organization of primary and secondary educa-

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<sup>80</sup> Fung, "Education", p. 303.

<sup>81</sup> See R. M. Marsh and J. R. Sampson, *1963 Report of the Education Commission (Marsh-Sampson Report)* (Hong Kong: Government Printer, 1963), p. 4.



tion. Primary education became a five-year programme, beginning at the age of seven, and one to two years of secondary education were to be provided so that pupils might continue their schooling up to the age of fourteen. In the same year, the *Marsh-Sampson Report* was published. It recommended a further change in the educational structure which aroused controversy. The government appointed a special Working Party in 1964 to advise on the adoption and the implementation of the proposals. In 1965 the *White Paper on Education Policy* was published. It announced the restructuring of primary and secondary education and made the achievement of universal primary education the immediate aim of the government. As a result, primary education was extended to six years again. The provision of special Forms 1 and 2 was abolished as this change had not received general support.<sup>82</sup> By 1971, the goal of providing compulsory and free primary education was achieved.<sup>83</sup>

Vernacular education had made considerable development over this decade. As mentioned, the *Keswick Report* of 1952 initiated the idea of running university courses in Chinese, and the Chinese University of Hong Kong was officially established in 1963.<sup>84</sup> The *Marsh-Sampson Report* of 1963 also recommended an increasing proportion of Chinese schools where English would be taught as a second language.<sup>85</sup> While the proportion of Chinese schools increased at the primary level, the 1965 White Paper refused to extend the policy to the secondary level.<sup>86</sup> In addition to these major changes, an 80 per cent capital grant for aided secondary schools was introduced in 1966. In 1967, the three Teachers' Training Colleges

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<sup>82</sup> See *Education Policy* (1965 White Paper) (Hong Kong: Government Printer, 1965) and *Marsh-Sampson Report*, pp. 7, 10 & 107.

<sup>83</sup> "Education at the Crossroads", *op. cit.*, p. 2.

<sup>84</sup> Downey, *op. cit.*, p. 65 and To, *op. cit.*, pp. 77-78.

<sup>85</sup> "With the establishment of a Chinese university in Hong Kong, consideration should be given to the proportion of children placed in schools where the medium of instruction is English with a view to increasing the provision of Chinese schools where English is taught as a second language." See *Marsh-Sampson Report*, pp. 106-107.

<sup>86</sup> "We are reluctant to endorse this recommendation in face of the marked parental preference for Anglo-Chinese secondary education, the fact that English language is an important medium of international communication and that a knowledge of it has undoubted commercial value in Hong Kong ..." See 1965 White Paper on Education Policy.

were renamed Colleges of Education. The English and Chinese School Certificate Examinations were renamed Certificate of Education (English) and Certificate of Education (Chinese). In 1968, the administration of primary education was decentralized and a reduction of fees in government primary schools and a large number of subsidized primary schools was introduced. There were further reductions in fees in 1969.

If the sixties was a decade of expansion and structural change in education, the pace was even more rapid in the seventies. In 1970, the government announced its intention to expand secondary school places. In the same year, the Morrison Hill Technical Institute was opened. In 1971, free primary education was introduced in all government schools and in the majority of aided primary schools. A New Education Ordinance was issued whereby the Director of Education was empowered to order parents to send their children to school, marking the beginning of compulsory education. In the same year, the Further Education and Technical Education Divisions were set up in the Education Department. The Boards of the Certificate of Education (English) and Certificate of Education (Chinese) were amalgamated. In 1972, free education was extended to special primary schools for handicapped children. In that year, the Education Action Group was formed, and the Hong Kong Polytechnic was founded. In 1973, a Unified Code of Aid for Secondary Schools took effect. The Board of Education was reconstituted and it produced a Green Paper entitled *Report of the Board of Education on the Proposed Expansion of Secondary School education in Hong Kong over the Next Decade*. As a revision of the report, the 1974 White Paper, *Secondary Education in Hong Kong over the Next Decade*, set out a blueprint for the development of secondary education.<sup>87</sup>

In 1975, a New Code of Aid for primary schools was issued. A common course for junior secondary forms was formulated by the Curriculum Development Committee. Two more Technical Institutes were inaugurated. The Report of the Working

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<sup>87</sup> "Education at the Crossroads", *op. cit.* and 1974 *Secondary Education in Hong Kong over the Next Decade* (Hong Kong: Government Printer, 1974).

Party on the Replacement of the SSEE was produced, leading to the introduction of a new system of allocation of secondary school places. In 1976, the Apprenticeship Ordinance was enacted. In 1977, the fourth Technical Institute was built, the Experimental Study Room Project was launched, the Hong Kong Examinations Authority was formed as an independent examination body, the Education Department was reorganized, and a White Paper entitled *Integrating the Disabled into the Community* was published, proposing a comprehensive policy for rehabilitation, including a co-ordinated plan for the development of special education, training and related services. In the same year a Green Paper entitled *Senior Secondary and Tertiary Education: A Development Programme for Hong Kong over the Next Decade* was published. In 1978, the Secondary Schools Places Allocation (SSPA) Scheme was implemented. In that year, a White Paper entitled *The Development of Senior Secondary and Tertiary Education* announced a plan to provide subsidized senior secondary school places for about 60 per cent of the 15 year olds by 1981, rising to over 70 per cent in 1986.<sup>88</sup> As a result, in 1979 a Junior Secondary Education Assessment (JSEA) Section was set up in the Education Department to introduce a new system of selection and allocation for Post-Form 3 school places in 1981. Also in 1979, 57 non-profit-making schools were included in a scheme of phased conversion to fully-aided schools which was completed in 1982. The 1979 White Paper, *Social Welfare into the 1980s*, also set out plans for the development of personal social work among young people, including school social work.<sup>89</sup>

Compulsory education was introduced and the main features of the educational system had been shaped in the sixties and the seventies, but this by no means implies that the educational scene in the eighties is a static one. On the contrary, major changes have continued to take place within the last six years. In 1981, the primary school entrance examinations were abolished. The "General Guidelines on Moral Education in Schools" was issued by the Education Department. The

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<sup>88</sup> See *Development of Senior Secondary and Tertiary Education* (1978 White Paper) (Hong Kong: Government Printer, 1978).

<sup>89</sup> "Education at the Crossroads", p. 3.

1981 White Paper, *Primary Education and Pre-Primary Services*, was published, announcing a package of measures designed to improve standards in child-care centres, kindergartens and primary schools. The year 1982 was marked by a number of innovations. A new Department of Technical Education and Industrial Training was established. The Institute of Language in Education (ILE) was inaugurated. A new scheme of financial assistance to non-profit-making kindergartens started. The Primary One Admission (POA) system was implemented. The School Textbook Assistance Scheme was extended to junior secondary school pupils. The Computer Studies Pilot Scheme was launched. In 1983, five degree programmes were offered for the first time in the Hong Kong Polytechnic. The Education Ordinance was amended to allow kindergartens to operate nursery classes. The Baptist College became a self-governing tertiary institution. In 1984, the Hong Kong Academy of Performing Arts was opened. The Codes of Aid for Primary and Secondary Schools were revised. The "Guide of Kindergarten Curriculum" was issued. The Hong Kong City Polytechnic was created in 1984. In 1985, the government announced its intention to establish a third university in Hong Kong.<sup>90</sup> In 1986, the Education Department announced an amendment of the Secondary Places Allocation System and a proposal to recruit two to three native English speakers as English teachers in each school.<sup>91</sup> In November, the Education Department, due to heavy criticism, withdrew its attempt to introduce the new allocation system.<sup>92</sup> The year 1987 has seen the first attempt of an English-medium school to convert to a "mother-tongue" medium school.<sup>93</sup>

In addition, over the last six years, continuous reviews of the educational system and recommendations for restructuring have been made. For example, in 1981, an international panel of visitors was appointed by the government, after close consultation with the Organization for Economic Cooperation and Development

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<sup>90</sup> *Hong Kong 1985: A Review of 1984*, p. 126.

<sup>91</sup> *Tung Fong Yat Pao*, 25 Jul 1986 and *Wah Kiu Yat Pao*, 28 Jul 1986.

<sup>92</sup> *Wen Wei Pao*, 18 Nov 1987.

<sup>93</sup> *Sing Tao Man Pao*, 17 Mar 1987.

(OECD), to undertake an overall review of the local educational system.<sup>94</sup> The panel's report, *A Perspective on Education in Hong Kong*, was submitted in 1982. In response to the panel's report, an education commission was set up in April 1984 to co-ordinate and give advice on educational policy.<sup>95</sup> The *Education Commission Report No. 1* was published in October 1984. The major recommendations set out in the report which were subsequently accepted by the government included:

1. the phasing out of the Junior Secondary Education Assessment (JSEA) by 1991;
2. the improvement of the standards of Chinese and English in schools;
3. the qualitative improvement and quantitative expansion of the teaching service;
4. the need to study the importance of "open education" at different levels; and
5. the continuation of the existing educational research activities concerning the planning and formulation of educational policies.<sup>96</sup>

In 1986, the *Education Commission Report No. 2* was published. One of its proposals - the introduction of a one year "I" level curriculum and examinations in the Sixth Form - has aroused much controversy. The debate still continues.<sup>97</sup> Not long after the publication of the second report, the University of Hong Kong announced in November that it will become a four-year institute. This has been another event in the educational area which has aroused much attention and discussion.<sup>98</sup>

The above description suggests that the educational scene in the three societies has been dynamic during the post-war period. Not only have the educational systems expanded at an extraordinarily rapid tempo, but there have been rapid changes in educational policies. Virtually every year was marked by the emergence

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<sup>94</sup> K. W. J. Topley, "Preface" to *The Hong Kong Education System* (Hong Kong: Government Secretariat, 1981), p. 1.

<sup>95</sup> *Education Commission Report No. 1*, (Hong Kong: Government Printer, 1984), p. 1.

<sup>96</sup> *Hong Kong Education Department Annual Summary 1984-5* (Hong Kong: the Department, 1985), p. 1. For the details of the recommendations, see *Education Commission Report No. 1*, pp. 97-103.

<sup>97</sup> See *Education Commission Report No. 2*, pp. 80-84.

<sup>98</sup> *Ming Pao*, 15 Nov 1986.

of new educational policies. These policies on the one hand have been designed to *accommodate* the expansion of the educational systems, which aim at the achievement of universal education. On the other hand, these policies have been introduced to improve the quality of education, including the revision of curriculum and the improvement of facilities. Further, these policies denote a propensity of promoting science and technology education. What is more, all these policy changes indicate that education has been a major concern of the governments of these societies. And education is important vitally in terms of human investment.

**CHAPTER NINE**  
**PROBLEMS OF RAPID CHANGES**  
**IN EDUCATION**

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The drive for educational expansion is based on both assumptions and beliefs. The two major assumptions dominant in the post-war period have been (1) education is human investment which can contribute to technological and economic development and (2) through the expansion of school places to offer every child equal opportunity of schooling, social justice and equality will be achieved. However, while these two assumptions have become major factors in motivating many nations to expand their educational systems, at the same time they have been challenged on many fronts. As the first assumption has already been discussed, attention here will be concentrated on the second one. Before going to consider the problem of whether educational expansion has contributed to greater social equality, it is worth noting that the processes of rapid change in education can itself also constitute problems.

**A. The Costs of Rapid Change**

There are costs to pay for rapid change. Toffler's "Future Shock" thesis is a depressing account of the problems arising from social changes. Future shock, by definition, refers to the distress caused by requiring human beings to adapt to rapidly changing circumstances.<sup>1</sup> For all the societies under discussion, the principle of future shock applies. Stanley Hetzler argues that dilemmas and problems are inevitable for societies undergoing rapid and accelerating growth. Although para-

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<sup>1</sup> Toffler, *Future Shock*, p. 297.

doxical, it is always the case that a society advancing at a high rate will create in the domestic scene both confusion and conflict.<sup>2</sup> What this chapter attempts is to examine how these problems are manifest in the educational sphere.

## 1. The Quantity Versus Quality Dilemma

Once having appreciated the need to expand education, it seems that a society cannot avoid rapid expansion, as whenever there is increasing opportunity for receiving education, there will be corresponding and further expansion of aspirations. When there is pressure to expand quantitatively to satisfy the increasing demands for more education, every society runs into a dilemma of quantitative expansion at the expense of qualitative improvements. The reason is simple. How can a society generate enough money and teachers to cater for such expansion? This quantity versus quality dilemma is clearly demonstrated in the uneven quality of educational institutions that have been established during this period of rapid expansion.

In Singapore, one of the most serious problems associated with the rapid expansion in school places was the wide variety in the quality of education between the best schools and the poorest ones. According to the *Goh Report*, some schools have been consistently better than the others in PSLE and GCE "O" level examinations:

The variation in school passing rates in these examinations ranges from 10% to 100% with a mean of 70% and a standard deviation of 16% for primary schools, a mean of 59% and a standard deviation of 24% for secondary schools. In other words, there is a wide variation in school performances especially among the secondary schools. The report entitled "Variation in School Performance" analyses the contributing factors to these differences in the school performances. These schools have been categorized according to their results in the PSLE or GCE "O" examinations as: Good Schools: above 80% passes; Average Schools: 50%-80% passes; Poor Schools: below 50% passes.<sup>3</sup>

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<sup>2</sup> Stanley A. Hetzler, *Technological Growth and Social Change: Achieving Modernization* (New York: Praeger, 1969), p. 7.

<sup>3</sup> *Goh Report*, p. 3.5



As Murray, Goh and Mosbergen point out, the prestigious older government and mission schools are staffed by more experienced teachers as compared with the newly established ones. The discrepancy between the former type of schools and the latter type is even more marked at the secondary level. Consequently, the good schools continue to attract pupils from educationally and economically advantaged homes. The newly established ones are mostly attended by pupils from families whose "culture" does not provide the support and stimulus necessary of children are to succeed in an academic programme. It is immaterial whether the programme is in English or in Mandarin Chinese. The languages taught in the schools are foreign to them, for most of them speak dialects other than Mandarin at home. Learning Mandarin is a sufficient challenge to them, without the additional burden of learning English. Moreover, the relatively lower standard of English teachers in the newer Chinese-stream schools has aggravated the difficulties resulting in only the most talented and dedicated children making satisfactory progress. This phenomenon has had a demoralizing effect on staff, pupils and parents of the less favoured schools.<sup>4</sup>

In Hong Kong, the expansion of education was made possible by the existence of a large number of privately run schools. During the seventies, with the pressure to achieve the introduction of universal education, there was a very great increase in student enrolment at the secondary level. However, the increased numbers in private schools far exceeded that in government and aided schools. For example, from 1974 to 1975, the increase in enrolment in the former type of schools was 36,261 whereas it was only 8,475 in the latter type, or a ratio of 4.3 to 1. During the years 1975-1976, 1976-1977 and 1977-1978, the enrolment increase in the two types of schools was 26,680 and 6,685 (4:1), 20,574 and 1,0053 (2:1), and 17,238 and 14,146 (1.2:1) respectively. There is, however, a clear trend for the increase in private school enrolment to decline and the increase in government and aided schools to grow. Nevertheless, even though the ratio of increase from 1978 to 1979 was 1.2:1,

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<sup>4</sup> Thomas, Goh and Mosbergen, *op. cit.*, p. 200.

the increase in the private school intake was still remarkable.<sup>5</sup> With regard to the total enrolment, in 1978, the private schools accounted for 281,802 pupils, whereas the government and aided schools had 120,576 pupils.<sup>6</sup> Until 1976, less than 18 per cent of the children who took the Secondary School Entrance Examination were attending government or aided schools.<sup>7</sup> The role of private schools was even more important above the junior secondary level, i.e. the compulsory level. Here private school places comprised 62.7 per cent of the total enrolment in 1979.<sup>8</sup>

The finance, facilities and the size of these private schools are generally less satisfactory as compared to the government and aided schools. According to government figures, the average annual allocation for each pupil is HK\$10,300 in a government school, HK\$7,304 in a government-aided school, and HK\$2,782 in a private school.<sup>9</sup> In respect of teacher qualifications, in 1980, the ratio of graduate teachers to non-graduate teachers was 1.4:1 in the government and aided schools whilst it was 1:1 in the private schools.<sup>10</sup> In respect of the graduate teachers, the ratio of trained to untrained teachers was 1.2:1 in the government and aided schools, whereas it was 0.24:1 in the private schools, and 0.19:1 if only the private independent schools are considered. In respect of the non-graduate teachers, the ratio of trained to untrained teachers was 14.5:1 in the government and aided schools, whereas it was 0.6:1 in the private schools and 0.2:1 in the private independent

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<sup>5</sup> Hong Kong. Education Department, *Education Department Annual Summary 1976-77*, p. 24 and *Education Department Annual Summary 1977-78*, p. 31. The enrolment figures of the private schools include those of the private independent schools and those private schools under the "bought places" scheme which inaugurated in 1971. Under the scheme, the government selected a number of private schools to be subsidized. The amount of subsidy was based on the number of pupils allocated to these schools by the government, as a means of expanding subsidized school places.

<sup>6</sup> The figures referred to the enrolment in secondary day schools. See *Education Department Annual Summary 1977-78*, p. 44.

<sup>7</sup> Arthur Hinton, "Secondary Education for All: The Need for Teaching Aids", *Education Journal*, 3, 1979, 149.

<sup>8</sup> Topley, *The Hong Kong Education System*, p. 20. The percentage referred to the proportion enrolled in private independent schools only. Those enrolled in the private schools under the "bought place" scheme accounted for 0.3 per cent only.

<sup>9</sup> *South China Morning Post*, 9 March 1985. Cited by Cheng Kai Ming, "Education: What is to be Planned?" in Jao et al., eds., *Hong Kong and 1997*, p. 545.

<sup>10</sup> The private schools again include those under the "bought place" scheme.

schools.<sup>11</sup> From these figures, it is clear that while there is no significant difference in the ratio of graduate teachers to non-graduate teachers between the public sector and the private sector, untrained teachers constitute a major proportion in the staffs of the private schools. The situation is reversed in the government and aided schools. Maybe because of this, marked differences in performance between the two types of schools can be observed. For example, a survey conducted by the Chinese University Students' Union shows that the most serious problems of failure in understanding teacher instructions take place in private schools.<sup>12</sup> Further, a study conducted by P. K. Siu suggests that students from the government and aided schools perform considerably better than those from the private subsidized schools in aptitude tests.<sup>13</sup>

This is clearly in substance with K. M. Cheng's criticism that, under the policy of compulsory education, a large proportion of pupils are compulsorily placed into "second-class" schools. For example, in 1981 there were still 55 per cent of junior secondary pupils in the private and independent schools.<sup>14</sup> Cheng also is critical of the "bought place" policy on the grounds that it is unjustified to describe the bought places as subsidized school places. They should more properly be called pseudo-subsidized school places, when we consider the inadequate facilities of the private schools.<sup>15</sup> Thus, strictly speaking, the introduction of the bought place scheme only creates an illusion of universal education. It should be noted that the government admits that the problem in some ways lies in the rapid expansion of the educational system:

Part of the problem undoubtedly lies in the rapid pace at which the public-sector school system has recently expanded: the system has in a sense outrun itself.... (T)he resources available for curriculum development have

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<sup>11</sup> *Ibid.*, Appendix G.

<sup>12</sup> "Survey Highlights Student Alienation", *South China Morning Post*, 2 Nov 1981.

<sup>13</sup> See P. K. Siu, "Pattern Analysis of differential Aptitudes of Hong Kong Secondary School Students" (in Chinese), *Education Journal*, 3, 1979, 19.

<sup>14</sup> Cheng Kai Ming, "A Review of Eleven Years' Education", *Hong Kong Economic Journal Monthly*, 6(3), 1982, 15.

<sup>15</sup> *Ibid.*

been limited, schools have been hard pressed for sufficient space and facilities to diversify the curriculum, teachers have had insufficient experience of less able pupils at this level to be able to understand and provide for their needs, there has been tension between the language needs of pupils and the language practices of individual schools, there is disparity of provision in the public sector and a growing inability to reconcile an anxious concern for academic standards with a recognition that different kinds of standard should be evolving for different kinds of pupil.<sup>16</sup>

Japan's educational dilemma is most clearly seen in the higher education sector. Kitamura even suggests that what Japan is facing is not a dilemma but a "trilemma": quantitative expansion, qualitative diversification, and reaching the limit of resources.<sup>17</sup> As a result of rapid expansion after the war, the "quality lag" in Japanese higher education has become a well known issue. Nagai considers that educational standards will continue to decline due to rapid expansion. Lectures are given in packed classrooms by inadequately paid teachers and the university has been reduced to a sort of career centre for job induction or allocation.<sup>18</sup> Kobayashi points out that, in the universities, "the quality of teaching was subject to constant public criticism for supposedly failing to meet the expansion of knowledge, the increasing complexity of society and the changing quality of students."<sup>19</sup> Although he generally approves of Japan, Vogel in his book *Japan as Number One* admits that university expenditures per student are unreasonably low, faculty devotion to teaching and concern for students is small, and student preparation is not satisfactory.<sup>20</sup> Reischauer is also critical. "The squandering of four years at the college level on poor teaching and very little study seems an incredible waste of time for a nation so passionately devoted to efficiency."<sup>21</sup>

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<sup>16</sup> *The Hong Kong Education System*, p. 129.

<sup>17</sup> Kitamura, "Mass Higher Education", p. 80.

<sup>18</sup> Nagai, *Higher Education in Japan*, p. 110.

<sup>19</sup> Tetsuya Kobayashi, "Into the 1980s: the Japanese Case", *Comparative Education*, 16(3), Oct 1980, 237.

<sup>20</sup> Ezra Vogel, *Japan as Number One: Lessons for America* (Cambridge, Mass.: Harvard University Press, 1979), p. 162.

<sup>21</sup> Edwin Reischauer, "Introduction" in Benjamin Duke, *The Japanese School: Lessons for Industrial America* (New York: Praeger, 1986), p. xviii.

Benjamin Duke further points out that educational facilities in Japan remained “woefully inadequate” in the seventies, even at the secondary level. Classes averaged between forty and fifty students per classroom. Many classes were conducted in old wooden structures with primitive facilities and unsanitary conditions.<sup>22</sup> Turning to higher education, he asserts:

Academic standards, facilities, faculty qualifications, etc., have simply not been able to keep pace with the rapid expansion.... Too many of the large institutions with thousands of students resemble factories devoid of quality control. There are few, if any, class requirements; attendance cannot be taken; examinations are perfunctory; and faculty, especially the huge corps of part-timers required to service the gigantic course load, are notorious for class cancellations. Absenteeism among students is endemic. There is little, other than club activities, which interests the typical student in the mammoth university system.

Overcrowding, understaffing, and physically poor facilities are not the only factors provoking student indifference and discontent. The frustrating experiences of the competitive high school days alienate many students from academic study after they have passed the university entrance exam. Japanese lecturers are also notoriously uninspiring, as are most public speakers and political leaders. The scholar is bent upon his personal research and writing. And the full expectation of “graduation without effort” is hardly conducive to serious work.<sup>23</sup>

The expansion of higher education in Japan was achieved through the expansion of private universities. Under the old regulations there were only 32 private universities in 1948, but as a result of relaxing the traditional standards for university chartering, a total of 105 private universities had been recognized by 1950.<sup>24</sup> Since then, private universities have mushroomed. They numbered 140 in 1960, 274 in 1970 and 310 in 1977. Student enrolment in these institutions rose from 136,287 in 1950 to 403,625 in 1960, 1 million in 1970 and 1.4 million in 1977. Private uni-

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<sup>22</sup> Duke, “Statistical Trends in Postwar Japanese Education”, *Comparative Education Review*, 19(2), Jun 1975, 262. A similar situation is also reported in Thomas Rohlen’s work. See Thomas P. Rohlen, *Japan’s High Schools* (Berkeley and Los Angeles: University of California Press, 1983), pp. 19, 25 & 116.

<sup>23</sup> Duke, *op. cit.*

<sup>24</sup> Ikuo Amano, “Continuity and Change in the Structure of Japanese Higher Education” in Cummings, Amano and Kitamura, eds., *op. cit.*, p. 33.

versities comprised 52.2 per cent of all universities in 1950, and the percentage rose to 57 in 1960, 71.7 in 1970 and 71.9 in 1977. Students enrolled in these private universities accounted for 60.6 per cent of the total university enrolment in 1950, and the percentage increased to 64.4 in 1960, 74.4 in 1970 and 76.4 in 1977.<sup>25</sup> Taking all other junior colleges and technical schools into account, private higher institutions totalled 747, comprising 74.1 per cent of all higher institutions, with an enrolment of 1.7 million, comprising 78.3 per cent of total enrolment in 1976.<sup>26</sup> There is no doubt that private universities and their students have come to dominate the higher educational scene in Japan.

In this context it is important to consider the general standard of provision in the private sector. In 1974, expenditure per student averaged US\$1,877 in private institutions, whereas it was US\$5,779 in public ones, hence the per-student expenditure in the respective sectors was a ratio of 1:5. In terms of expenditure on higher education, student tuition fees in private institutions accounted for 55.4 per cent of the total expenditure whilst revenues from public sources only accounted for 14.5 per cent between 1890 and 1974. However in the public institutions, tuition fees contributed only less than 4 per cent of the expenditure but public sources contributed more than 94 per cent. Subsidies to private institutions did rise from 1 per cent of the Ministry of Education's budget in 1970 to 5.2 per cent in 1977. However, government subsidies to private institutions are still less than a quarter of those to the public institutions. In 1983, the government provided nearly two-thirds of the finance for the national universities and colleges but only 12 per cent for the private ones.<sup>27</sup> This means that private institutions have to charge exceptionally high fees as compared with their public counterparts. For example, in 1977, first-year students in private institutions paid 3.4 times more than those in the national

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<sup>25</sup> Duke, *op. cit.*, pp. 260-261 and Kitamura, "Mass Higher Education", p. 65.

<sup>26</sup> The proportion of students enrolled in private higher institutions reached over 60 per cent since 1940 and over 70 per cent since 1965, for example, it was 71.3 per cent in 1965, 75.3 per cent in 1970 and 77.4 per cent in 1975. See Shogo Ichikawa, "Finance of Higher Education" in Cummings, Amano and Kitamura, eds., *op. cit.*, p. 41.

<sup>27</sup> Kim Fararo, "Japanese Higher-education Reformers Weigh Elitism, Academic Laxness, and 'Exam Hell'," *The Chronicle of Higher Education*, 33(36), May 1987, 38.

institutions. In medicine and dentistry, first-year students in private institutions even paid 11.8 times more.<sup>28</sup> Unless the students of these private institutions come from very rich families, they suffer considerable financial difficulty. A common way out is to take part-time jobs to enable them to pay the fees.<sup>29</sup> As a result of the impoverished financial situation in the private institutions and the continuing expansion, the student-teacher ratios have risen sharply. For instance, between 1935 and 1967, at Waseda, the ratio rose from 14.7 to 47.5; at Keio, from 15.9 to 39.2; at Niho, from 10.9 to 56.9.<sup>30</sup>

The relatively unfavourable financial situation, the expansion in student enrolment and the increasing student-teacher ratio all have contributed to a decline of educational quality in the higher education sector. Concerning the negative affects of such expansion, Cummings and Amano comment:

Needless to say, teaching loads have increased, often to at least 12 in-class hours a week. These mammoth private institutions suffer from many of the familiar problems of large scale - bureaucratization, impersonality, and poor communication and integration of programmes. They have sadly departed from their proud heritage as idealistic institutions concerned with character education, and their faculties recognize this.<sup>31</sup>

## 2. Rapid Change and Confusion

Cummings suggests that the radical post-war educational transformation in Japan has brought about much confusion. An example is that the rapid expansion of secondary education has provided far greater numbers of youth with the paper qualifications to compete for university entrance, but the number of places in the

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<sup>28</sup> Ichikawa, *op. cit.*, pp. 43-60.

<sup>29</sup> In 1976, 34 per cent of the students in private institutions came from the highest income stratum whilst students in public institutions were rather evenly spread over the five income levels. See *ibid.*, p. 58.

<sup>30</sup> William K. Cummings and Ikuo Amano. "The Changing Role of the Japanese Professor" in Cummings, Amano and Kitamura, eds., *op. cit.*, p. 132.

<sup>31</sup> *Ibid.*,

major national universities has not significantly expanded to accommodate them.<sup>32</sup> Another problem is the lack of direction in change. This again is demonstrated most clearly in the higher education sector, where the basic policy towards the private sector is “no control, no support”.<sup>33</sup> Concerning higher education as a whole, this problem of lack of direction is emphatically delineated by Nagai:

The present state of Japanese higher education is serious enough, but the most acute problem is the total lack of direction and the absence of a clear approach to the problems posed by the present impasse. Who is to become the centre and initiator of change? Is it to be the Ministry of Education? The Japan Science Council? The autonomous faculty meetings that govern each university? Which body is to work toward solutions, what kind of approach is to be employed, and what factors are to be taken into consideration? Today all these questions remain unanswered. It is not clear where the initiative for the responsible planning and administration of higher education policies rests.<sup>34</sup>

Nagai's view is supported by the fact that some of those reports that have affected Japan's post-war educational development have been written by associations and departments other than the Ministry of Education, such as the Economic Council and the *Nikkiren*.

The problem of lack of direction can also be seen in Hong Kong's educational development. On this matter, the 1982 *Llewellyn Report* states:

We believe that the problem lies not in the dedication of those involved but rather in an absence of clearly set out and easily understood purposes and procedures. A fundamental confusion has crept in, perhaps only over recent years, between the task of managing the education as it exists and the notion of policy formation with the necessary forward planning to achieve long term objectives. The education system seems over-administered in terms of minute bureaucratic surveillance of regulations yet under-planned in terms of strategic goals and the know-how to

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<sup>32</sup> William K. Cummings, “Japan” in Burton R. Clark, ed., *The School and the University: An International Perspective* (Berkeley and Los Angeles: University of California Press, 1985), pp. 144-145.

<sup>33</sup> *Ibid.*, p. 143.

<sup>34</sup> Nagai, *Higher Education in Japan*, pp. 129-130.



attain them.<sup>35</sup>

A study of the implementation of educational policies reveals that there were frequent reversals of policies. For example, in 1963, the government decided to raise the normal age of primary school entry from six to seven years, to change the existing six-year primary school into a five-year one, and to provide in primary schools Special Forms I and II for those pupils unable to gain admission to full secondary courses before the age of fourteen.<sup>36</sup> However, these policies did not last long. In 1966, Special Forms I and II were discontinued, primary education reverted to being a six-year course and started at six years of age, as a result of the recommendations of the 1965 White Paper on Educational Policy.<sup>37</sup> Whilst the 1981 White Paper on Primary Education and Pre-Primary Services recommended that a new Training Institute for kindergarten teachers should be built by September 1984, the 1986 *Education Commission Report No. 2* considered that such an institute "should not be pursued in the short run."<sup>38</sup> Reviewing the development of education, a government report also concedes that "educational developments over the past few decades have tended to be sectorally-based and from time to time progress on different fronts has been somewhat out of phase."<sup>39</sup>

The lack of direction in Hong Kong can most clearly be seen in the higher education sector. An interesting recent case is the change in the required years for the undergraduate course. The post-secondary sector has been criticized as chaotic in the sense that the University of Hong Kong runs three-year undergraduate programmes whereas the Chinese University of Hong Kong runs four-year ones. The former university admits students who pass the Advanced Level examinations after

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<sup>35</sup> *Llewellyn Report*, p. 16.

<sup>36</sup> *Statement on Government's Policy on the Re-organization of the Structure of Primary and Secondary Education* (Tabled in Hong Kong Legislative Council on Wednesday, 23 Jan 1963), p. 4 and *Education Policy* (1965 White Paper) (Hong Kong: Government Printer, 1965), p. 1.

<sup>37</sup> *Education Policy*, pp. 3-4.

<sup>38</sup> *Primary Education and Pre-Primary Services* (1981 White Paper) (Hong Kong: Government Printer, 1981), p. 12 and Hong Kong. Education Commission, *Education Commission Report No. 2* (Hong Kong: Government Printer, 1986), p. 46.

<sup>39</sup> *The Hong Kong Education System*, p. 130.

two years of studying the prescribed matriculation courses on completion of senior secondary education. Whereas the latter university admits students who pass the Higher Level examinations after one year of studying the prescribed matriculation courses. The University of Hong Kong conventionally enjoys a higher prestige as it was the first university established in Hong Kong, and it attracts applications from "brighter" students. The Chinese University of Hong Kong has suffered from two problems since its inauguration. First, it has been pressed to change into a three-year institute for the sake of unifying the matriculation system and also for financial reasons. Second, because of lack of tradition and prestige, it is not able to attract the first rate students who obviously prefer to enter the University of Hong Kong. As a result, its students are mainly composed either of those who fail to be admitted to the older university or those who are not qualified for admission - the graduates of the Chinese medium secondary schools.

The Chinese University has never agreed to change into a three-year institute. On the other hand, to reverse its relatively disadvantageous situation in attracting students, in 1984 it introduced a provisional admission scheme which admits students on the basis of their performance in the HKCEE.<sup>40</sup> Those who are provisionally admitted are then officially admitted if they pass the Higher Level examinations in the following year. This results into a two-fold advantage. For students who are provisionally admitted, the examination pressures are substantially reduced, as their entrance is basically secured. Moreover, many first rate students are attracted by this early assurance of university entry and turn to the University. However this scheme has created tensions between the two universities.

To resolve the situation, the Education Commission, in its second report of 1986, introduced the "I" (Intermediate) Level matriculation courses and examinations to replace the Higher Level ones. Whilst the former Higher Level courses and Advanced Level courses are independent courses, the "I" Level courses are inte-

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<sup>40</sup> "Implementation of Provisional Acceptance Scheme in 1985", *Chinese University Bulletin*, (2), 1984, 6.

grated with the Advance Level courses, so students do not have to choose one or the other courses for university matriculation. Those who cannot be admitted to the Chinese University of Hong Kong after one year of study can still proceed to the Advanced Level courses for entrance into the University of Hong Kong. However, the introduction of the "I" Level courses has not lessened the competition between the two universities in respect of attracting brighter students. Shortly after the publication of the *Education Commission Report No. 2*, the University of Hong Kong suddenly announced its decision to change into a four-year institute. The reason given is that the University has not been satisfied with the standards of the students admitted, and an extra year is need improve their general knowledge and language ability. Whilst many other reasons have been suggested for this one-sided announcement, the point here is that this incident is further evidence of lack of direction in the higher education sector. And the University's announcement of the change has considerably embarrassed the Education Commission which should have consulted the two universities before the introduction of the "I" Level and which includes among its members the Chairman of the University and Polytechnic Grants Committee. Further, the decision of the University of Hong Kong will certainly create confusion in the educational system, as it will affect the matriculation system and it may lead to changes in the secondary education sector as well.

The above discussion supports Joseph Cheng's criticism that Hong Kong education is characterized by passivity and lack of direction in relation to social change. It is social developments that affect educational changes, rather than the reverse.<sup>41</sup>

The confusion in Singapore's educational policies is reflected in its language policies. According to Seah and Seah, "the formulation of language policies has been arbitrary and even confusing", the introduction of the policy can be considered "ill-prepared" and "hasty", and the policy has been implemented without clear directives. The introduction of the Language Exposure Time (LET) policy was an

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<sup>41</sup> Joseph Y. S. Cheng, "The Educational Policies of Hong Kong and Their Directions" (in Chinese), in Federation of Students' Unions and CUHK Students' Union, ed., *op. cit.*, p. 11.

example. The policy was introduced with an aim of providing pupils with more opportunity to hear, speak and use the second language. It was started at the primary level with mathematics and science being taught in English in Primary 1 in the non-English medium schools in 1966. In 1969, it was extended to the secondary level with technical subjects to be taught in English in Secondary 1 in Malay and Tamil-medium schools while simultaneously, civics was taught in the mother-tongue English-medium schools. In 1970, the Ministry of Education considered that history in Primary 3 of English-medium schools should be taught in the second language. However, "one year later, this directive has to be rescinded as the textbooks available in the prescribed second language were above the language standard of the pupils."<sup>42</sup> Another instance they cited shows the lack of directives in the implementation of the policy, they say:

Another (instance) was in the form a directive in 1972 to increase the minimum LET to 25 per cent in 1973, going up to 33.3 per cent in 1974 and ultimately to 40 per cent in 1975 at primary level. This directive gave no rational basis for the percentages targetted for LET and no studies were done to back up the arbitrary figures. Worse still, the policy unconsciously increased the burden on the pupils, as if they were sufficiently elastic to cope with these increased schedules. As it was, the less able pupils had difficulty in coping with this rigid system. Maybe this problem was realized, again as an after thought, for in 1974 or two years later, there was another directive to allow flexibility for schools in determining LET. Insufficient curriculum time for other subjects like mathematics, science and even English in this English-medium primary schools was the high price paid for more LET.<sup>43</sup>

### **3. Change, Conflicts, and Adjustments**

According to Sweeting, two major crises in Hong Kong in the seventies can be related to population change and education planning (or lack of planning).<sup>44</sup>

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<sup>42</sup> See Seah Chee Meow and Linda Seah, "Education Reform and National Integration" in Peter S. J. Chen, ed., *Singapore: Development Policies and Trends*, pp. 243 & 250.

<sup>43</sup> *Ibid.*

<sup>44</sup> Sweeting, *op. cit.*, Chapter Ten.

Firstly, the annual growth rate in the seventies began to decline as compared to the sixties (from 2.3 per cent in the sixties to 2.1 per cent in the mid-seventies). This has reduced the pressure for providing school places and has made possible the shift of emphasis towards quality improvement in education. However, at the same time, the decline in expansion of the primary school population has also led to an over-supply of government and aided school places which subsequently led to the closure of a number of government primary schools after 1974. The closure of primary schools has threatened the employment opportunities of those newly graduated from the Colleges of Education and the promotion opportunities of the College of Education-trained teachers in government and aided schools.<sup>45</sup> Moreover, to keep pace with the expansion of schooling, the Education Department has grown enormously. As a result it has become more bureaucratic and its links with teachers, principals and supervisors have become more formal. Consequently, there arose a Certificated Masters' dispute in 1973. On 4th and 13th April, teachers in a number of primary schools boycotted classes, protesting against the Certificated Masters' Pay Scale. It ended with the government's announcement on the 8th that it would modify the pay scale and set up a committee to examine the underlying causes of the dispute.

Another major crisis in the seventies was the Precious Blood Golden Jubilee Secondary School Incident. During April and May 1977, teachers of the school strongly criticized the management of the school, especially the alleged financial mismanagement. The government responded by revising teachers' contracts and issuing a letter of warning to the teachers concerned. Reports of the two incidents, the *T. K. Ann Report* and the *Rayson Huang Report*, suggested that the lack of effective communication between the government and the teachers constitute a major underlying cause of both crises.<sup>46</sup> Both reports recommended that the Education

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<sup>45</sup> Graduates of the Colleges of Education are classified as Certificate Masters as distinct from the Graduate Masters who are degree holders. Certificate Masters can teach in primary schools and junior secondary forms in secondary schools.

<sup>46</sup> For example, the *Rayson Huang Report* says, "The disclosure of financial mismanagement in the School led to a series of ill-advised and misguided actions and reactions. The situation, aggravated

Department should pay urgent attention to improving its channels of communication with teachers, principals and supervisors, as well as between teachers and school management committees. The rapid expansion of education from elitist system to mass-education system had not been matched with equal efficiency in management. As Sweeting comments,

Both educational crises can, then, be viewed as symptoms of the problems caused by a changeover from an elitist system to a system of mass-education. In particular, the *Rayson Huang Report* made it clear that the rapid expansion of secondary education in the 1970s, which was heavily dependent on aided schools, was not accompanied by sufficient and effective supervision of these schools by the Education Department.<sup>47</sup>

In Singapore, the main reason for the lack of success of the Basic Course was also the rapid change in policies. "The Basic Course was mooted and implemented rather hastily," Seah and Seah commented, "being decided upon in April 1976 and put into effect in January 1977. As such, the time available for preparation of a curriculum was short and the concern was only to prepare the syllabus for B4 ready for the new term in January 1977 and the syllabi for other levels after B4 was implemented. Even for the B1 to B3 syllabi, the duration of their preparation was one year altogether whereas the normal preparation time for curriculum preparation is one year per level."<sup>48</sup> Too rapid a change is always accompanied by a lack of communication between the Ministry of Education and the teachers, as clearly happened in Hong Kong. Seah and Seah also regard it as another factor leading to the failure of the Basic Course, that the Ministry of Education did not give sufficient guidance for proper assessment and evaluation by teachers. And the lack of feedback also meant a lack of means for improving and assessing the Basic Course. As a result of the rapid introduction of the new course, people were confused. Parents were

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by ineffective communication, was unfortunately allowed to deteriorate into its present state where intense conflicts exist, where feelings are running high and attitudes irretrievably hardened." See *Precious Blood Golden Jubilee Secondary School: An Interim Report (Rayson Huang Report)* (Hong Kong: University of Hong Kong, 1978), p. 2. The *T. K. Ann Report* is cited by Sweeting, *op. cit.*

<sup>47</sup> Sweeting, *op. cit.*

<sup>48</sup> Seah and Seah, *op. cit.*, p. 251.

anxious about the change and tried their best to force their children to work hard so as to avoid being placed in the new course. Teachers were confused as a result of the lack of clear instructions.

There were always new policies with new hurdles to cross, with the danger of children ending up in the Basic Course if they were not pushed to keep up with the rest. Teachers were equally confused by new directives and lack of training and equipment in the form of syllabi and textbooks to do their job properly. The Ministry of Education itself was not a great help in the implementation process. The strain within the education system was thus tremendous.<sup>49</sup>

It was, of course, the pupils who suffered the most. However, as well as the students, teachers also suffered from the immediate effects of change. The study of Tan and Soh reveals that teachers have experienced "future shock".<sup>50</sup> W. K. Sim also notes that teachers tend to be bewildered with the policy changes, hence there is a challenge of "accommodating change versus changing change" to the Institute of Education in Singapore.<sup>51</sup> Moreover, 92 per cent of the teachers interviewed by the Goh Committee considered that there had been too many changes in the education system and 48 per cent of them thought that the lack of stability had adversely affected their morale. "The majority viewed these changes unfavourably, with only 14 per cent of them considering them helpful."<sup>52</sup> It is noteworthy, however, that in spite of identifying these negative effects of changes, the Goh Committee introduced a more radical change of the education system - the 1980 New Education System. This once again had adverse effects on teachers' morale. According to a survey conducted by the University of Singapore Student Union Education Project in mid-1979, 66 per cent of the teachers responded were of the opinion that their morale would be adversely affected.<sup>53</sup>

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<sup>49</sup> *Ibid.*, p. 252.

<sup>50</sup> Tan Wee Kiat and Soh Kay Cheng, "Where Have All the Young Men (and Women) Gone?" in Lun Chor Yee and Dudley de Suez, eds., *IEXperience: The First Ten Year* (Singapore: Institute of Education, 1983), p. 68.

<sup>51</sup> Sim Wong Kooi, "IEXaming and IEXpanding IEXperience: Delineating IE's Present and Future Role" in Lun and Suez, eds., *op. cit.*, p. 101.

<sup>52</sup> *Goh Report*, p. 3.7

<sup>53</sup> USSU Survey Committee, "USSU Education Survey", *Singapore Undergrad*, Special Issue, Dec

The Japanese people value harmony in relationships. Nevertheless, harmony has not prevailed in the education sector. Not only is conflict in the education arena in Japan more obvious than in the other two societies, but it is also more serious in the education sector than in any other sector of Japanese society. This is most trenchantly described by Thomas Rohlen:

No Japanese institution in the post-war period has experienced more conflict than public education. Schools, universities, whole school systems, and the machinery of national educational policy have all witnessed intense and persistent conflict between politicized teachers' unions and equally politicized administrative authorities. Fist-fights in the Diet, teachers' strikes, sit-ins, mass arrests, and legal suits have regularly marked the relationship. The resulting hostility, distrust, and acrimony have often divided faculties and paralyzed schools.<sup>54</sup>

It is commonly held that conflict in the education sector is mainly occasioned by the progressive ideology held by the Japan's Teachers' Union and the student unions of higher institutions. The progressive ideology they hold constitutes a challenge to the policies of the more conservative or capitalist governing party (the Liberal-Democratic Party), creating tensions between the two camps. Hence the conflict between them is mainly political in nature. With this fundamental difference between the two, a major change that favours one party inevitably causes resentment in the other. A celebrated example is the school board controversy which took place in the fifties. Under the occupation, as part of the policy of decentralization of power, the Board of Education Law was passed in 1948, which established local and state school boards which were independent of the Ministry of Education and the members of which were elected by the people. After the termination of the occupation, the Liberal government reviewed the policy. The report of the Investigation Council on the Governmental Legal System was published in 1953, suggesting that school boards at the town-village level should be abolished

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1979, 17.

<sup>54</sup> Thomas P. Rohlen, "Conflict in Institutional Environments: Politics in Education" in Ellis S. Krauss, Thomas P. Rohlen and Patricia G. Steinhoff, eds., *Conflict in Japan* (Honolulu: University of Hawaii Press, 1984), p. 137.



and that boards at higher levels should become nominated bodies with their powers curbed, as a remedy for the ills of “excessive decentralization”. This proposal aroused much controversy within the Ministry of Education. There was strong opposition from outside the government. The Socialist Party and the JTU launched a massive campaign to save the democratic school board system introduced by the Americans. Despite all these efforts, the board controversy was concluded in 1956 favour of nominated school boards.<sup>55</sup>

The rapid expansion of higher education is one factor which has contributed to the emergence of the post-war student movement in Japan. With the expansion of higher education, the status and the size of the counter-elite continued to grow as it was joined by increasing numbers of academic staff and students. The authority and prestige of many professors was lowered and at the same time they became independent of the government. Therefore, instead of feeling responsible to the government, many of the academic elite distrusted the political elite and gave their support to the counter-elite. As a result of rapid growth in the number of university students, their privileges, prestige, their social origins, their intellectual level, and their cultural background were all lowered as compared to the pre-war period. Moreover, the standards of teaching were lowered, the students’ relationship with professors became more impersonal, and their prospective careers became less promising.<sup>56</sup> Hence the underlying cause of student unrest was probably discontent and disappointment as a result of rapid expansion rather than differences in political ideology. As Donald Wheeler says,

There was disappointment with the university and the modern society it seemed to serve all too uncritically. This unhappiness went far beyond the activist minority, but the activists crystalized the disappointment and attempted to explain the failure of the university. Beyond the usual crit-

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<sup>55</sup> Yunk H. Park, “The Central Council for Education, Organized Business, and the Politics of Educational Policy-making in Japan”, *Comparative Education Review*, 19(2), Jun 1975, 298-299 and Benjamin Duke, “The Irony of Japanese Postwar Education”, *Comparative Education Review*, 6(3), Feb 1963, 214-215.

<sup>56</sup> Michiya Shimbori, “Zengakuren: A Japanese Case Study of a Student Political Movement”, *Sociology of Education*, 27(3), Spring 1964, 233 & 243-244.

icisms that the curriculum was inadequate and the faculty not dedicated to teaching, and that the university was a partner of industry for its own gain, was the far more telling criticism that the university was supplying justifications for the technological rationality that was leading to the enslavement of modern men and their minds. It was producing graduates with the mentality of technological rationality and was supplying them to industry and governments, and therefore should be shut down.<sup>57</sup>

It should be noted, according to Wheeler's analysis, that another factor that contributed to student discontent was that education had become merely an instrument for technological development. All these discontents and disappointments drove the students towards the camp of the counter-elite. As Michiya Shimbori remarked,

Less prestige and esteem were afforded; students lost their elite consciousness and they gained a feeling of affinity and identity with the mass. Greater power on the part of students was felt to result from their numbers. They became more sensitive to mass culture and less sensitive to academic culture.<sup>58</sup>

In 1969, the university system exploded in violence and prolonged student protest.<sup>59</sup> As a result of the widespread use of riot police on campus, relative calm was restored from 1971. However, in 1973-1974, most private universities greatly increased tuition fees and this provoked considerable unrest among the volatile left wing student organizations. Nevertheless, the higher fees were implemented.<sup>60</sup> Evaluated from whatever point of view, the student unrest in Japan had caused much harm and disturbance to the society.<sup>61</sup>

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<sup>57</sup> Donald F. Wheeler, "Japan's Postmodern Student Movement" in Cummings, Amano, Kitamura, eds., *op. cit.*, 204.

<sup>58</sup> *Ibid.*, p. 233.

<sup>59</sup> "Although parallel protests were occurring around the world, few compared with the Japanese experience in terms of length, the number of school days lost, and the extraordinary mental anguish experienced by those responsible for higher education." See Cummings, Amano and Kitamura, "Introduction" in Cummings, Amano and Kitamura, eds., *op. cit.*, p. 4.

<sup>60</sup> Duke, "Statistical Trends", p. 262.

<sup>61</sup> The number of university disturbances amounted to 49 in 1965, 25 in 1966, 38 in 1967 and 65 in 1968. The extremist students moved from using logs and stones to Molotov cocktails, explosives and time bombs. As a result, in 1971, five policemen and seven students died; in 1972, two policemen

## **B. Educational Expansion and Social Equality**

At the beginning of the post-war era, there was widespread belief that education could bring about social development and equality. However, some major research which appeared in the sixties began to cast doubt on this optimistic view. James Coleman's Equality of Educational Opportunity Survey (EEOS) Report of 1966 challenged the assumption that educational equality can be fulfilled by providing free education, common curricula, and common schooling. Coleman and his associates reported that all this could not guarantee equality as there remained significant differences in academic achievement between black and white students in America. Family background and other intangible characteristics of the school such as teacher morale, teachers' expectations, and level of interest in learning all mattered.<sup>62</sup> Christopher Jencks's *Inequality*, which was published in 1972 was another seminal book which seriously undermined the American people's optimistic belief that they were moving steadily towards increased social equality through educational reforms. Re-analysing the major educational surveys conducted since 1960, Jencks and his associates discovered that none of the evidence proved that "school reform can be expected to bring about significant social changes outside the schools. More specifically,... equalizing educational opportunity would do very little to make adults more equal."<sup>63</sup> More critically, Bowles and Gintis contended from a Marxist perspective that education not only cannot promote equality but actually fosters inequality and legitimizes inequality through the ostensibly objective merit system. In short, education mirrors the inequalities of capitalist society.<sup>64</sup> In 1980, Halsey, Heath and Ridge published their report of the Oxford Social Mobility Project. Their

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were killed and a suspect student spy was tortured to death; in 1973, two students were murdered; and in 1974, three students were murdered. See *ibid.*, pp. 263-264 and Nagai, *Higher Education in Japan*, p. 245.

<sup>62</sup> James Coleman et al., *Equality of Educational Opportunity* (Washington: U.S. Government Printing Office, 1966), pp. 21-23. See also James Coleman, "The Concept of Equality of Educational Opportunity" in *School and Society: A Sociological Reader* (London: Routledge & Kegan Paul, 1971), p. 237.

<sup>63</sup> Christopher Jencks et al., *Inequality: A Reassessment of the Effect of Family and Schooling in America* (London: Allen Lane, 1973), p. 255. The book was first published by Basic Books in 1972.

<sup>64</sup> Samuel Bowles and Herbert Gintis, *Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life* (London: Routledge & Paul, 1976), p. 123.

conclusion on Britain is similar to the findings in America, that social inequalities have been little affected by post-war educational reform.<sup>65</sup>

Not only have the advanced countries found that social inequalities persist in spite of educational expansion. It is well known that social inequalities are more acute in developing and under-developed countries where education may expand faster. As Adam Curle points out, in these countries, not only do inequalities exist, but people believe themselves to be unequal.<sup>66</sup> According to the study of Fagerlind and Saha, neither the advanced nor the developing countries in the socialist world are free from this problem of inequalities, although educational development has been a major concern in these countries since the post-war era. They sum up a number of studies and conclude that the non-manual strata enjoy advantages "both in access to education, particularly institutions of higher education, and to the more professionally-oriented institutions."<sup>67</sup>

In contrast to these records of the ineffectiveness of education in promoting social equality, there are records in Japan, Hong Kong and Singapore that seem to suggest the opposite. However, further examination will lead to the conclusion that they are not different from the other parts of the world.

Cummings suggests that Japanese post-war education has brought about egalitarian transformation in the society. The official curriculum is rich in egalitarian and participatory themes. The standards attained by Japanese pupils is hence gen-

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<sup>65</sup> "Unequal access to the superior secondary schools has remained depressingly," they admitted. "In summary, school inequalities of opportunity have been remarkably stable over the forty years which our study covers.... If the 'hereditary curse upon English education is its organization upon lines of social class', that would seem to be as true in the 1960s as it was in 1931 when Tawney wrote." See A. H. Halsey, A. F. Heath and J. M. Ridge, *Origins and Destinations: Family, Class, and Education in Modern Britain* (Oxford: Clarendon Press, 1980), pp. 303 & 305.

<sup>66</sup> "This belief is increased in the fairly frequent instances in which the 'upper' is racially different from the 'lower' class, as in several Latin American societies, the Philippines, South Africa, Afghanistan, Burma, Nepal, Ethiopia, and a number of other countries." See Adam Curle, *Educational Strategy for Developing Societies: A Study of Educational and Social Factors in Relation to Economic Growth*, second edition (London: Tavistock, 1970), pp. 43-44.

<sup>67</sup> Inegemar Fagerlind and Lawrence J. Saha, *Education and National Development: A Comparative Perspective* (Oxford: Pergamon, 1983), pp. 247-248.

erally high equality among pupils, as exemplified by the generally high standards of the Japanese pupils as reported in the International Study of Educational Attainment in Mathematics conducted in the early sixties. Students in Japan have an increasingly egalitarian outlook. As compared to a 1955 social mobility survey, the 1975 National Social Mobility Survey showed that the 20-29 year olds are more egalitarian in their occupational prestige assignments than those of 1955.<sup>68</sup> This observation is supported by an empirical study undertaken by Kenichi Tominaga, whose findings suggest that the inter-generational mobility rate in Japanese society as a whole increased from 51.6 to 64.3 between 1955 and 1965.<sup>69</sup>

Moreover, Cummings alleges that Japanese students are more independent in their attitudes, as "the more educated an individual, the more likely it is that he will vote for a Leftist candidate and participate in progressive social movements. Thus, education is a force for social reform."<sup>70</sup> What seems to be most convincing of all is that the achievement of social equality in terms of income distribution is reflected in the Gini Coefficients for personal income distribution. Whilst the Gini Coefficients were 0.52 in France in 1962, 0.4 in the United Kingdom, the United States in 1964 and Sweden in 1963, it was 0.32 in Japan in 1965. And it declined to 0.28 in 1970 in Japan, as compared to 0.47 in Germany and 0.52 in France in the same year.<sup>71</sup>

K. M. Cheng suggests that Hong Kong has moved towards equality during the last decade.<sup>72</sup> This has been achieved first through the expansion of educational provision and secondly through the school places allocation mechanisms which have

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<sup>68</sup> See William K. Cummings, "The Egalitarian Transformation of Postwar Japanese Education", *Comparative Education Review*, 26(1), Feb 1982, 16-35.

<sup>69</sup> Kenichi Tominaga, "Studies of Social stratification and Social Mobility in Japan: 1955-1967", *Rice University Studies*, 56, 1970, 136.

<sup>70</sup> William K. Cummings, "The Effects of Japanese Schools" in Antonina Koloskowska and Guido Martinotti, eds., *Education in A Changing Society* (London: Sage Publications, 1977), p. 275.

<sup>71</sup> Gini Coefficient is to show the differences in income distribution, the larger the figure, the more unequal the distribution and the wider the gap between the rich and the poor. See Cummings, "The Egalitarian Transformation", p. 17 and *Education and Equality in Japan* (Princeton, New Jersey: Princeton University Press, 1980), p. 256.

<sup>72</sup> Cheng, "Education: What is to be Planned?" p. 535.

weakened the "elitism" in the educational system. For example, the best secondary schools are now taking in the top 20 per cent of the student population, as compared to only 5 per cent previously.<sup>73</sup>

The most convincing evidence of increased equality can be obtained from the analyses of the socio-economic backgrounds of university students. Both Mark Ross and W. K. Tsang report of the lower socio-economic origins of the university students. For example, between 1970 and 1983 in the Chinese University of Hong Kong, students with parents as workers and hawkers comprised 33.7 per cent whilst those with parents as administrators and managers comprised only 9.03 per cent. In respect of parents' lack of education, parents with primary education or below comprised 53.2 per cent and parents with secondary education comprised 32 per cent, but parents with higher education comprised only 9.5 per cent. In regard to the income level, students from the lower-income families comprised 70.6 per cent, students from the higher-income families comprised only 4.5 per cent.<sup>74</sup> A similar situation can be observed in the University of Hong Kong. Students from the lower-income and middle-income families comprised the majority. In 1971, 36.1 per cent of students came from families with monthly income below HK\$1,000 and 27.8 per cent came from families with monthly income between HK\$1,000 and HK\$1,999. The percentages were 60.5 and 27.3 respectively in the Chinese University of Hong Kong. Considering that households with monthly income below HK\$1,000 comprised 44.5 per cent of all the households in Hong Kong in 1971, and that those with HK\$1,000-HK\$1,900 comprised 11.6 per cent, children from the middle-lower income families are well represented in the universities.<sup>75</sup>

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<sup>73</sup> *Ibid.*

<sup>74</sup> Tsang Wing-Kwong, "Issues on Equality of Opportunity in University Education" (in Chinese), *CUHK Education Journal*, 13(1), June 1985, 16-19. For Mark Ross' findings, see Mark J. M. Ross, *Competition for Education in Hong Kong: The Schools, the Entrance Examinations, and the Strategies of Chinese Families* (Texas: Ph.D. Thesis of the University of Texas at Austin, 1976), pp. 97-116.

<sup>75</sup> N. K. Lau and F. H. Ho, *Report of the Survey of Student Life in the University of Hong Kong, 1971*, unpublished report by the Hong Kong University Students' Union. Cited by *ibid.*, p. 20. For the distribution of monthly household income in Hong Kong in 1971, see Geiger and Geiger, *op. cit.*, p. //119.

Y. W. Sung points out that income inequality is not particularly serious in an international perspective. The Gini Coefficient was 0.49 in Philippines in 1971, 0.58 and 0.53 in South Africa and Mexico respectively in 1965. However it was 0.44 in Hong Kong and Singapore in 1971 and 1972 respectively. Further, from 1966 to 1976, there was certainly improvement in income distribution, as the Gini Coefficient dropped from 0.49 in 1966 to 0.44 in 1976.<sup>76</sup>

In the case of Singapore, the Gini Coefficient declined from 0.498 in 1966 to 0.448 in 1975.<sup>77</sup> In addition, Pang estimates that the income share of the top-level of earners declined from 28.9 per cent in 1966 to 22 per cent 1973.<sup>78</sup> The Household Expenditure Survey of 1982/83 also showed that in Singapore the proportion of the below S\$1,000 income group dropped from 62 per cent to 31 per cent between 1977 and 1983. At the same time, the above S\$2,000 income group expanded from 10 per cent to 33 per cent.<sup>79</sup>

According to Peter Chen's study, education constitutes an important element in determining upper class status in Singapore<sup>80</sup> Rao and Ramakrishnan suggest that in the society as a whole the proportion of the workforce with secondary education increased from 16 per cent to 35 per cent between 1966 and 1975. The proportion of the population at the professional and administrative level rose from 9.0 per cent to 14.2 per cent.<sup>81</sup>

This data would seem to suggest that, in all three societies, education has contributed to a lessening of social inequalities. However, it would be unwise to come to such a conclusion before considering a number of other factors. As Thomas

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<sup>76</sup> Y. W. Sung, "The Extent of Income Inequality in Hong Kong and Its Changes" (in Chinese) in Joseph Y. S. Cheng, eds., *Essays on Economics, Politics and Society of Hong Kong*, pp. 19-20.

<sup>77</sup> V. V. Bhanaji Rao and M. K. Ramakrishnan, *Economic Inequality in Singapore: Impact of Economic Growth and Structural Change 1966-1975* (Singapore: Singapore University Press, 1980), p. 43.

<sup>78</sup> Pang, *Education, Manpower and Development in Singapore*, p. 66.

<sup>79</sup> *Report on the Household Survey 1982/83* (Singapore: Department of Statistics, 1985), p. 92.

<sup>80</sup> Peter S. J. Chen, "Professional and Intellectual Elites in Singapore", p. 28.

<sup>81</sup> Rao and Ramakrishnan, *op. cit.*, pp. 4 & 7.

Rohlen points out, "Equal opportunity, we must remind ourselves, is invariably a complicated matter. Not only is the question of degree involved, both *opportunity* and *outcome* are relevant, but quite different, perspectives from which to view the facts."<sup>82</sup> *Vis-a-vis* the above promising records, many observers consider that these societies are still far from being egalitarian.

For instance, contrary to the general belief that about 90 per cent of the Japanese population is middle class, S. Aoki argues that this is an illusion if we consider three criteria of the middle class; namely, owning a house or spending no more than 20 per cent of monthly income in rent, having accumulated financial assets equivalent to at least two years' income, and an ability to maintain the family's livelihood at reasonable standards of health and culture. Considering these three criteria, Aoki points out first that loan repayments on new houses have reached a level of 28.5 per cent of annual income. Secondly, at the end of 1976, an average Japanese had bank deposits and other financial assets worth 1.7 times as much as their annual income. As compared to the average of 2.22 times before the war in 1934-1936, most Japanese are actually worse off. Further, the Japanese figure was far below the average 2.36 times in the United States in 1976. Thirdly, based on a 1977 survey, real expenditure totalled Y227,000 a month out of a real income of Y286,000. However, the average monthly salary of the householder comes only to Y182,000. Hence, without other sources of income the household accounts would run into red. Commenting on Aoki's thesis, the editor of *Japan Echo* pointed out that as the domestic purchasing power of the yen is lower than its external purchasing power, the Japanese standard of living is not as high as is generally assumed overseas.<sup>83</sup>

Although Cummings asserts that egalitarianism not only pervades the curriculum and pedagogy but also contributes to levelling the social effects in the perfor-

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<sup>82</sup> Thomas P. Rohlen, "Is Japanese Education Becoming Less Egalitarian? Notes on High School Stratification and Reform", *The Journal of Japanese Studies*, 3(1), Winter 1977, 37.

<sup>83</sup> Shigeru Aoki, "Debunking the 90%-Middle-Class Myth", *Japan Echo*, 6(9), 1979, 30-33 and "A Middle-Class Nation", *Japan Echo*, 6(9), 1979, 16.



mances of the students, he does admit a certain degree of uncertainty in interpreting these findings:

First, egalitarian education promotes the motivations of all children.... Still, one cannot say whether the availability of realistic information subsequently neutralizes the primary school's levelling effect or not.<sup>84</sup>

Moreover, he also admits that there exists a class bias in students' performances and opportunities. Analysing the 1975 National Mobility Survey, Cummings writes:

The relative attainment of and gains of educational level varied widely by social class of origin. Children of elites have always been the best-educated, and thus have had little room for further gains.... (C)hildren of manual workers born at the turn of the century obtained, on the average, a middle school education; only 16.7 per cent attended a higher educational institution. Although the opportunities for educational upgrading were available to this class, relatively few took advantage of them. Neither their average level of educational attainment nor the proportion attending higher educational institutions showed notable improvement.

...However, the gains for the children from white-collar backgrounds are the most impressive. Whereas only 7.6 per cent of the oldest cohort attended a higher educational institution, the proportion rose to 50 per cent for the most recent cohort...

Thus, long-term trends in educational attainment reveal significant differentials in the extent to which specific classes have responded to the increasing availability of education opportunities. The gap separating elite children from the rest has narrowed somewhat. On the other hand, the gap between white-collar and blue-collar children has widened considerably and that between white-collar and farm children has increased somewhat less...<sup>85</sup>

The advantages of the upper class children over the lower class children can be attested by their over-representation in institutions of higher education. The Ministry of Education Student Life Survey classified students' households into five

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<sup>84</sup> Cummings, *Education and Equality in Japan*, p. 193.

<sup>85</sup> William K. Cummings, "Expansion, Examination Fever, and Equality", in Cummings, Amano and Kitamura, eds., *op. cit.*, pp. 97-98. See also Cummings, *Education and Equality in Japan*, pp. 218-223.

strata based on income differences, with each stratum representing 20 per cent of all households in Japan. Class I represents the lowest stratum, Class V represents the uppermost. According to the survey, among students of all four-year universities, 62.3 per cent came from the upper classes (IV and V) - the richest forty per cent of the households. And a clear rising trend to their representation can be observed, as the proportion continued to rise to 67.9 per cent in 1965, 69.0 per cent in 1970 and 71.9 per cent in 1974. The proportions of those students from Class V (the richest 20 per cent) were 43.2 per cent, 46.2 per cent, 47.0 per cent and 50.1 per cent in the respective years. The over representation of students from rich families is even more marked in the private universities, as those from Classes IV and V accounted for 72.1 per cent, 77.3 per cent, 74.8 per cent and 75.8 per cent in the respective years. In public universities, the proportions were lower but students from the upper classes still constituted the majority - 44.7 per cent, 50.1 per cent, 50.4 per cent and 58.4 per cent in the respective years.<sup>86</sup>

In addition, data released by Tokyo University suggest a trend of an increasing proportion of students coming from high status families. For example, between 1959 and 1970, students who were the children of senior and middle ranking business executives increased from 3 per cent to 6 per cent; and students who were the children of private sector "employees" grew from 31 per cent to 39 per cent. In 1970, two-thirds of these employees were managers.<sup>87</sup> The survey conducted by Inoguchi and Kobashima also suggests that a high proportion of students of the College of General Education of the Tokyo University came from rich families. In 1984, 83 per cent of their respondents came from families with annual incomes of Y5 million. Of this group, 36.6 per cent had parents in the Y5 million to Y8 million range.<sup>88</sup>

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<sup>86</sup> The table of percentage appears both in Rohlen, *Japan's High Schools*, p. 138 and Cummings, *Education and Equality in Japan*, p. 226.

<sup>87</sup> Cited by Cummings, *op. cit.*, p. 225.

<sup>88</sup> Inoguchi Takashi and Kobashima Ikuo, "The Status Quo Student Elite", *Japan Echo*, 11(1), 1984, 28.

Inequality is also found at the secondary level. To enter the prestigious universities, it is important to have attended the right elite school and even kindergarten from the beginning. Vogel points out that although normally examination is the determinant for moving up to a further stage of education, there exists in the Japanese school system, certain schools known as escalator schools, where students can proceed from kindergarten to college.<sup>89</sup> However, there has been an increase in private elite schools but a decrease in public elite schools. For example, in 1955, 80 per cent of the students admitted to Tokyo University from the top ten schools in Japan came from public high schools, but the percentage fell to 13 in 1975. On the other hand, the proportions of students from private high schools rose from 11 per cent in 1955 to 54 in 1975.<sup>90</sup> One reason, ironically, is the introduction of a more egalitarian method of student allocation. Under the 1967 secondary school reform in Tokyo, students are assigned to a public, academic secondary school by a computer once they qualify in the general examination. Because they were anxious about the random outcomes that may result, parents have disliked this arrangement. Increasing numbers of the best students were thus taken out of the public schools and sent to private schools. Consequently, growing numbers of elite private secondary schools emerged, replacing the traditional public ones.<sup>91</sup> However, it is important to note that private schools charge extremely high fees. As reported by *Yomuri Shinbun* in 1974, the 81 private secondary schools in Osaka charged an average monthly fee of Y17,200 and an average total annual cost of Y220,000, which amounted to 31 times the cost of public secondary schools.<sup>92</sup>

Another matter that should be mentioned is the *juku* (cram schools) phenomenon. Japan has been famous for its *juku* fever. For example, over 37 per cent of the lower secondary students attended *juku* in 1976. The attendance is

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<sup>89</sup> "When a child is admitted to an outstanding kindergarten such as those associated with Keio University (private) and Ochanomizu Women's University (public), he is thought to be on the *escareetaa* and established for life." See Vogel, *Japan's New Middle Class*, pp. 45-46.

<sup>90</sup> Rohlen, "Is Japanese Education Becoming Less Egalitarian?" pp. 43- 44.

<sup>91</sup> *Ibid.*, pp. 46 & 62-63.

<sup>92</sup> *Yomuri Shinbun*, 26 June, 1974. Cited by *ibid.*, p. 48.

even higher in the largest cities. For example, in Tokyo, nearly two out of three lower secondary students either attend *juku* or receive private tuition after school.<sup>93</sup> The high attendance at *juku* constitutes one explanation of the generally higher academic standards in international comparisons. Interestingly, not only are there elite secondary schools and universities, but also elite cram schools. In large cities, the elite post-upper secondary cram schools (*yobiko*) are more difficult to enter than the elite public secondary schools. Tuition fees of these schools can vary greatly but certainly constitute an additional financial burden on the family.<sup>94</sup> Apart from the *Juku* expenses, there are other expenses to meet to create better chances of gaining university entrance, if the parents can afford them. For example, the new home study video-cassettes can cost up to about US\$2,600 a set.<sup>95</sup>

The *necessity* to enter elite secondary schools and even elite cram schools to increase the chance of being admitted to prestigious universities, and the proportionately growing significance of private elite schools all explain why the rich are in a more advantageous position to *compete* for entering prestigious universities. And an important element of inequality is that it requires more money to obtain a better chance for better education for *social mobility*. As Rohlen comments:

In summary, cram materials, private tutors, special schools, private elite secondary schools, and the many other aids to educational success that are purchased on the market by parents acting in a private capacity all have the effect of creating less equality of educational outcome. Families are not equal in their capacities to compete in the "private sphere", that extensive part of education over which public schools and public policy have little or no influence.<sup>96</sup>

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<sup>93</sup> Thomas P. Rohlen, "The *Juku* Phenomenon: An Exploratory Essay", *The Journal of Japanese Studies*, 6(2), Summer 1980, 209-211.

<sup>94</sup> *Juku* has become a blooming industry in Japan. In 1976, expenditures by parents for *juku* education amounted to about Y72 billion (approximately US\$800,000,000). See Rohlen, "Is Japanese Education Becoming Less Egalitarian?" p. 54.

<sup>95</sup> Bennett Brooks, "When It's Exam Time in Japan, the Cash Registers Start to Ring", *The Chronicle of Higher Education*, 20 May 1987, 38. The Japanese also pay to pray for good scores if they can afford. For instance, over 5,000 students and, in some cases, their parents shelled out about US160 a night for a room and two meals at Tokyo's Plaza in 1986.*ibid.*.

<sup>96</sup> *Ibid.*, p. 56.

In line with this discussion, K. Miyazaki seems to offer the best conclusion for Japan's present situation in respect of education and social equality:

Japan seems to have spawned a society in which upper-strata children tend to enter the best secondary schools and universities, preparing them for entry into the elite; middle-strata children attend second- and third-rate secondary schools and universities and go on to take commensurate jobs; and lower-strata children are apt to go to a low-class secondary school or attend night school and then begin employment. *In other words, the top remain at the top and the bottom at the bottom.*<sup>97</sup>

In the case of Hong Kong, to claim that there has been increased social mobility is refuted by Q. L. Cao, who asserts that there is no actual change in the proportions of the social strata in terms of occupation and income distribution. For instance, the professional and administrative level comprised 8.2 per cent of the total workforce in 1961. The percentage dropped to 7.4 in 1971 and rose again to 8.7 in 1981. The proportion of the population engaged in manufacturing and communication even increased. In 1961, this level comprised 48.7 per cent of the total workforce. The percentage rose to 52.3 in 1971 and 50.4 in 1981. As regards income distribution, the Gini Coefficient fell from 0.49 to 0.44 between 1960 and 1971. But it remained at 0.44 between 1971 and 1976. Hence he concludes that Hong Kong actually experiences considerable rigidity in its social stratification.<sup>98</sup>

The finding that a majority of university students come from lower socio-economic backgrounds is also only half of the story. Ross points out that, while the general level of education of the parents of the Chinese University students was generally low, their educational attainment was still significantly higher than that for the adult population as a whole.<sup>99</sup>

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<sup>97</sup> Miyazaki Kazuo, "Coping with a School-Conscious Society", *Japan Echo*, 9 (Special Issue), 1982, 64, (emphasis mine).

<sup>98</sup> Cao Qile, "A Preliminary Study of Hong Kong Education and Social Stratification" (in Chinese), in Hong Kong Federation of Students' Union and CUHK Students' Union, eds., *op. cit.*, pp. 236-238. Cf. L. Q. Zhou's study as cited by Ji Shi, "The Gap between the Rich and the Poor Becoming Obvious" (in Chinese), *Economics Reporter*, (38-9), Oct 81, 66.

<sup>99</sup> See Ross, *op. cit.*, pp. 98-106.

The finding of Ross leads to a question: Why does educational attainment of parents have significance but their socio-economic background *does not*? However, further examination of other studies leads to the conclusion that socio-economic background is significant. A study of school failure conducted by Elizabeth Rowe in 1966 found that the school failures invariably lived in accommodation with markedly less space than that of other pupils, more of the top group came from families of higher income but more of the bottom group from lower income families.<sup>100</sup> Y. W. Fung analysed the socio-economic backgrounds of the drop-outs in the early seventies. Placing these pupils into three income groups (higher, middle and lower), he found that 48.29 per cent of these pupils came from lower income families, 46.58 per cent from middle income families and only 5.13 per cent from higher income families. Further, he discovered that 63.77 per cent of their parents had not received education beyond the primary level. Of these, 34.06 per cent had completed primary education and 29.71 per cent had education below the primary level or were not educated at all.<sup>101</sup>

A survey conducted by Robert Mitchell in 1969 found that 16 schools which had more than half of their pupils from families in which the father had a middle or high level occupation, achieved a pass rate of 81 per cent or higher. In contrast, the 16 schools which had the highest proportion of pupils from the lowest socio-economic homes, achieved a pass rate of only 50 per cent or less.<sup>102</sup> Pedro Ng's study of access to education in a district Kwun Tong in 1975 found similar data. He also found that the proportion of youngsters from all socio-economic groups proceeding to higher levels of education had actually declined. In his words:

Our data show that *although practically all children of various social strata have had at least some primary education, the proportions completing primary school and reaching successively higher levels have generally declined*

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<sup>100</sup> Elizabeth Rowe et al., *Failure in School: Aspects of the Problem in Hong Kong* (Hong Kong: Hong Kong University Press, 1966), p. 150.

<sup>101</sup> Fung Yee-Wang, *Education and Society* (in Chinese) (Hong Kong: Ling Kee, 1975), pp. 65-66.

<sup>102</sup> Robert Edward Mitchell, *Pupil, Parent, and School: A Hong Kong Study* (Taipei: The Orient Cultural Service, 1972), p. 45.

*over time for all strata....*

Our findings do point to the existence of discrepancies in educational opportunity among the various social strata. *In most cases, sons of poorly educated fathers, as compared with those of better educated fathers, are at a disadvantage in reaching any given level of education and in proceeding further given that a particular level is reached....* It is only when we examine attainment rates at given educational levels among different social groups that we begin to see variations in access to educational opportunities.<sup>103</sup>

Not only does Japan have escalator schools, so also does Hong Kong. The only difference is that while Japan's escalator schools can lead a pupil from kindergarten to university, Hong Kong's escalator schools are limited to the secondary stage only. Although a central allocation system for Primary One school places was introduced in 1983, under the present system, a primary school may admit up to 65 per cent of students at its discretion. Of these, 35 per cent are unrestricted discretionary places, and 30 per cent are restricted discretionary places in the sense that the school is restricted to admitting children living in its district although it can choose which children are admitted.<sup>104</sup> In respect of Form One admission at the secondary level, there exist a feeder school system and a nominated school system. According to the feeder school system, a parent secondary school may reserve up to 85 per cent of the "normal" Form One places (i.e. excluding places in the floating classes) for eligible pupils from its feeder primary school. Under the nominated school system, the nominating secondary school may reserve up to 25 per cent of the Form One places for eligible Primary Six pupils from its nominated primary school or schools.<sup>105</sup> In 1971, there were 57 escalator schools which accounted for about 10 per cent of the total of Primary 6 graduates assigned places in secondary via the SSEE.<sup>106</sup> In August 1986, the Education Department intended to raise the proportion of

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<sup>103</sup> Pedro Ng, "Access to Educational Opportunity: The Case of Kwun Tong" (Hong Kong: Social Research Centre, Chinese University of Hong Kong, 1975), pp. 17-19.

<sup>104</sup> *Primary One Admission for September 1983* (information sheet) (Hong Kong: Education Department, 1983), p. 2.

<sup>105</sup> *Report of the Working Party Set up to Review the Secondary School Places Allocation System* (Hong Kong: Government Printer, 1981), pp. 4-5.

<sup>106</sup> Ross, *op. cit.*, p. 81.

discretionary places of the nominating secondary schools to 50 per cent. However, due to strong public criticism that the plan favoured elitism, the attempt was later abandoned.<sup>107</sup>

It is worth citing an example of the practice of discretionary intake. Children from 94 pre-schools and primary schools applied for admission to an elite primary school called Diocesan Girls' School in 1972. However pupils admitted mainly came from two kindergartens, Christ Church Kindergarten and Maryville Kindergarten - out of the 84 children accepted, 32 came from the former and 25 from the latter. A break down of the preferential admission status of these pupils suggests that nearly 40 per cent had family members or relatives who attended the school previously or had some previous connection with the school. A study of the occupations of the pupils' fathers shows that professionals comprised 34.5 per cent, administrators comprised 7.1 per cent, those who were managers or working proprietors comprised 25 per cent, i.e. 66.6 per cent of these pupils came from the upper class in terms of their fathers' occupations. What should be noted is that none of them had fathers engaged in unskilled manual jobs or menial or semi-skilled jobs.<sup>108</sup>

This case illustrates the advantages of the children of the upper class over those of the lower class in getting into better schools. However, there is a further question that has to be considered. If this phenomenon can be found in education up to the secondary level, why do we find a different situation at the university level where the majority of the students come from lower socio-economic backgrounds? The reason is that since competition for university entrance is very intense with only about 3 per cent of the relevant age group being admitted to the two universities, those who can afford to do so simply avoid such competition and turn elsewhere for higher education. A major and common route is to study overseas, but that is far more expensive than most people can afford. As Ross says,

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<sup>107</sup> See *Ming Pao*, 5th Aug 1986.

<sup>108</sup> It should be noted that an entrance test was held for selecting pupils. It was only that some pupils were granted preferential treatment. See *ibid.*, pp. 67-77.



The great difficulty of gaining entrance to Hong Kong's two universities is the major factor in the decisions of parents to send their children to a foreign university. Many of their children have attended very good secondary schools in Hong Kong, and might well succeed in the competition for admission to one of the Colony's universities but it is risky.... After the preparation afforded by study in one of Hong Kong's better secondary schools, the academic requirements for admission to many good American, Canadian, and other universities present less difficulty than those at Hong Kong's own.... (This) changes the socio-economic profile of the applicant pool by removing only those able to afford foreign study.<sup>109</sup>

Figures show that the number of students leaving for further studies in four major overseas countries - Britain, United States, Canada and Australia - is slightly higher even than the total enrolment in the two Hong Kong universities. For example, the number of students leaving for the four countries totalled 5,207 in 1969, 7,765 in 1976, 10,742 in 1979, as compared with the two universities' full time enrolment of 5,183 in 1969, 6,362 in 1976 and 10,567 in 1981.<sup>110</sup> This is a situation in which the rich can attain the highly desired goal of a place in an institution of higher education while avoiding the stresses of competition for a place in the Hong Kong universities.

While some of the evidence from Singapore suggests an increase in equality as mentioned above, both Chen and Pang are hesitant about coming to any definite conclusion. "The experience of Singapore does not support the hypothesis that income inequality increases in the early stages of industrialization. Of course it does not contradict the hypothesis either, as Singapore may have at some time in the past passed through a period of widening income inequality."<sup>111</sup> Interestingly, Chen also says that "the findings show that while the Singapore experience does not support the hypotheses of growing inequality in rapidly developing countries, neither does the Singapore case disprove it."<sup>112</sup> For example, the study of Noeleen

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<sup>109</sup> Ross, *op. cit.*, pp. 199-200.

<sup>110</sup> *Hong Kong Annual Digest of Statistics 1978* (Hong Kong: Census and Statistics Department, 1978), p. 153 and "Figures on Hong Kong Education", in *Hong Kong Federation of Students' Union and CUHK Students' Union*, eds., *op. cit.*, pp. 4 & 7.

<sup>111</sup> Pang, *Education, Manpower and Development in Singapore*, p. 68.

<sup>112</sup> Peter S. J. Chen, "Growth and Income Distribution in Singapore", *Southeast Asian Journal*

Heyzer shows that while 90 per cent of production and related workers belonged to the below S\$400 monthly income group in 1974, 75 per cent of them still fell into this category in 1978.<sup>113</sup>

Although, as Rao and Ramakrishnan point out, the professional and administrative groups have expanded, it is noteworthy that the lowest occupation stratum has not contracted. On the basis of their data, the proportion of the production workers and labourers even slightly rose from 38.5 per cent to 38.7 per cent between 1966 and 1975.<sup>114</sup> This accords with a previous study conducted by Riaz Hassan. Hassan grouped people into five classes according to education and occupation. While the proportion of Classes I and II, i.e. the upper class, expanded from 17 per cent to 21 per cent between 1957 and 1966, the proportion of Classes III and V dropped from 18.3 per cent and 7.9 per cent to 16 per cent and 3.8 per cent respectively. However, if Classes IV and V are considered together, there was no significant change in the proportion - 64.7 per cent in 1957 and 63 per cent in 1966.<sup>115</sup> Still the lower strata remain as the majority. H. C. Chan says, "In terms of changes in social structure, the change has been minimal."<sup>116</sup> A government publication also expresses concern over the continuing existence of the educational pyramid.

Our present education pyramid is not satisfactory. At the top, only 5 per cent of our total workforce have tertiary education, compared with 19 per cent in the United States and Japan, while at the base, 53 per cent of our workforce have less than secondary level education, compared with 15 per cent in the U.S., and 35 per cent in Japan.<sup>117</sup>

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*of Sociology*, 2(1-2), 1974, 129.

<sup>113</sup> It should be noted that the 90 per cent in 1974 was counted in the worst recession year in the seventies. See Noeleen Heyzer, "International Production and Social Change: An Analysis of the State, Employment, and Trade Unions in Singapore" in Peter Chen, ed., *Singapore: Development Policies and Trends*, pp. 116-118.

<sup>114</sup> Rao and Ramakrishnan, *op. cit.*, p. 4.

<sup>115</sup> Riaz Hassan, "Class, Ethnicity and Occupational Structure in Singapore", *Civilisation*, 20(4), 1970, Table 5.

<sup>116</sup> Chan Heng Chee, "The Political System and Political Change" in Hassan, ed., *Singapore: Society in Transition*, p. 47.

<sup>117</sup> "Aiming to Raise the Score", *Mirror*, 23(20), 15 Oct 1987, 3.

As in Hong Kong and Japan, children in Singapore from higher socio-economic educational strata have better chances of reaching higher education. Pang in the February 1979 issue of *Campus News* suggested that children of professionals, managers, executives and public officials are relatively over-represented in the university. Twenty-four per cent of the students had fathers with high-status occupations, as compared with 17 per cent of the students who had fathers who were production or transport workers. Moreover, first-year students of the university in 1976 reported an average monthly family income of around S\$1,115 approximately S\$200 more than the estimated income of an average household.<sup>118</sup> Another survey conducted by S. K. Chiew showed that in 1976 only 2.8 per cent of the employed males with monthly incomes below S\$200 were fathers of undergraduates, as compared to 19 per cent of the employed males with monthly incomes above S\$1,500.<sup>119</sup>

The 1980 New Education System (NES) places pupils into three different streams mainly based on language ability after Primary 3 and in the first form of secondary education. The main argument to justify the practice of streaming is the elimination of attrition rates. After being placed in a stream suited to them, children can proceed at a pace according to their *ability*. Of course, there is the further advantage that teachers find it easier to teach a class of similar standards and abilities. However, the introduction of this streaming policy has aroused severe criticism. Details of the criticism are reported in "USSU Forum: Our New Education System" in the special issue of the *Singapore Undergrad* in 1979. What is of interest here is that Eng and Cooper considered that the NES was unfair to children from lower socio-economic families. S. P. Eng said, "The majority of those to be streamed into the monolingual course would come from homes which were socio-economically very poor, and that there seemed no solution to the problem that these students could not compete no matter how hard they tried."<sup>120</sup> Robert

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<sup>118</sup> Cited by Leong Mei Cheng, "Equality of Educational Opportunity and Income Distribution in Singapore", *Singapore Undergrad*, (Special Issue: Education in Singapore), Dec 1979, 55.

<sup>119</sup> Cited by *ibid.*

<sup>120</sup> See "USSU Forum: Our New Education System", *Singapore Undergrad*, (Special Issue: Education in Singapore), Dec 1979, 22.

Cooper from his research experience commented that "streaming aggravates social and economic differences between children and is of no demonstrable value in the teaching and learning process."<sup>121</sup> The problem will be further aggravated if there is little lateral movement between streams. Unfortunately, although the *Goh Report* promised of lateral movement, this would normally only affect a small proportion of pupils. In an interview, Goh said, "there will be little lateral inter-stream movement of pupils. If the initial streaming exercise has been correctly done, there will be no lateral movement."<sup>122</sup> Anyway, streaming which starts as early as at Primary Four will seriously disadvantage the "late-developers". Also, the demoralizing effect of being placed in a monolingual stream is an important factor which has recently been depicted in an award-winning novel in Singapore.<sup>123</sup>

The above discussion suggests that in spite of rapid expansion of education and rapid changes in educational policies, and though there is some evidence of a reduction in inequality, social and educational inequalities remain, and so do elitism and social stratification. Concerning Japan, M. Sumiya says that "the feudalistic status hierarchy has proven quite persistent and ... has resisted change. Indeed, the social relations in every part of Japan's 'vertical society' are so deeply entrenched that they are not easily budged."<sup>124</sup> Concerning Singapore, Heyzer simply asserts that "Singapore today is a highly stratified society based largely on 'paper qualifications.'"<sup>125</sup> Even Prime Minister Lee stated that "younger generation in Asia is no longer stirred by the simple slogans of an egalitarian society: more and more, the young are showing that they can strive to be unequal."<sup>126</sup>

This should not be a surprise, when we remember that education in the three

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<sup>121</sup> Robert Cooper, "The NES: Streaming and Performance", *Singapore Undergrad*, (Special Issue: Education in Singapore), Dec 1979, 26.

<sup>122</sup> *New Nation*, 10 Sep 1979. Cited by Li Siang Poon, "Streaming", *Singapore Undergrad*, (Special Issue: Education in Singapore), Dec 1979, 48.

<sup>123</sup> X. N. Zhang, "Entering the World" (in Chinese), *The Nineties*, 211, Aug 1987, 100-111.

<sup>124</sup> Mikio Sumiya, "The Function and Social structure of Education: Schools and Japanese Society", *Journal of Social and Political Ideas in Japan*, 5(2-3), 1967, 127.

<sup>125</sup> Heyzer, *op. cit.*, p. 119.

<sup>126</sup> Cited by *ibid.*, p. 120.

societies is instrumental in the sense that it is treated as investment on human capital for technological development and for economic prosperity. As S. Yang says, "What has influenced educational development in the seventies (in Hong Kong) is a value system which is based on neither equity nor equality but adequacy."<sup>127</sup> The existence of a stratified society and/or elitism is not all evil in the sense that it offers a goal for people's endeavour. However, if the people of the upper socio-economic-educational strata retain advantages over others in the process of endeavour, the competition or race cannot be deemed fair. And this is the essence of inequality. Moreover, when we consider that it is the upper strata in the society who are the people to make policies and decisions, the hope of a genuine reduction in inequality will be very slight. Further, logically, the corollary of the persistence of elitism is social stratification which is the foundation of social inequality.

As Lapiere asserts, the social isolation of the different occupational strata has become an effective barrier to social change.<sup>128</sup> If education is considered a part of social policies where the power of decision rests in the hands of the privileged and the elites, it is unrealistic to expect them to create policy which will lead to the loss of their privileged position. This is evident from an empirical study conducted by Inoguchi and Kabashima which found that students of Tokyo University (elite students) want to maintain the social *status quo*.<sup>129</sup> Hence Michael Katz alleges that the extension and reform of education were not characterized by the potpourri of democracy, rationalism and humanism. On the contrary, "they were the coalition of the social leaders, status-anxious parents, and status-hungry educators to impose educational innovation, each for their own reason, upon a reluctant community."<sup>130</sup> It is no wonder that Curle maintains that education not only cannot eliminate inequality but on the contrary entrenches it:

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<sup>127</sup> Yang Sen, "A Critique of Educational Policies" (in Chinese), in M. H. Ann, W. S. Chiu and W. Wong, eds., *An Echo of the Hong Kong Social Policies* (Hong Kong: Jixian Press, 1987), p. 199.

<sup>128</sup> Lapiere, Richard T. *Social Change* (New York: McGraw-Hill, 1965), p. 368.

<sup>129</sup> Inoguchi and Kabashima, *op. cit.*, p. 34.

<sup>130</sup> Michael B. Katz, *The Irony of Early School Reform: Education Innovation in Mid-nineteen Century* (Boston: Beacon Press, 1968), p. 218.

Education has not broken down the barriers between men; it has created new hierarchies and snobbisms. This of course, is not demonstrated solely by educated unemployment, but by the almost universal exclusiveness of a new class in the new countries. Having spoken earlier of the new class as one of the great levellers, we have now to admit that initially the new class, assuming power to the extent of training and ability, accepts the criteria of class and the authority of the old elite. Its role can be far from egalitarian.<sup>131</sup>

In this respect, Pang and Lim are right when they contend that it is too much to expect education to change society. It is the society and its infrastructure which should be the first to change. As they say, "the school system, rather than being a means of influencing social structure, is in fact an inevitable product and reflection of that structure. The school system will only change when the underlying structure of incentives changes."<sup>132</sup>

### C. Rapid Change and Moral Education

In spite of the attention paid to the expansion of education, there has been criticism that the content or quality of education in these modern societies has not kept pace with the rapid social changes. The slowness of curriculum changes to help school children adapt to the rapidly changing society and retain cultural specificities have been focal points of attack. In the case of Hong Kong, Paul Morris is highly critical of the fact that curriculum development has lagged far behind the quantitative expansion of education.<sup>133</sup> A recent study of the Chinese University of Hong Kong also suggests that the materials used for teaching Chinese literature in secondary schools are far from relevant to the everyday lives of the school children.<sup>134</sup> Concerning Japan, S. Masui points out that the curriculum is rigid and

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<sup>131</sup> Curle, *op. cit.*, p. 91.

<sup>132</sup> Pang Eng Fong and Linda Lim, "The School System and Social Structure in Singapore", *Singapore Undergrad*, (Special Issue: Education in Singapore), Dec 1979, 36.

<sup>133</sup> Paul Morris, "The Context of Curriculum Development in Hong Kong: An Analysis of the Problems and Possibilities", *Asian Journal of Public Administration*, 1985, 18.

<sup>134</sup> See *People's Daily* (Overseas Edition), 13 Dec 1987, 5.

lacks flexibility, being directed only towards scholastic achievement tests.<sup>135</sup> The Second Report of the Provisional Council on Educational Reform is also critical of the fact that schools in Japan today have been late in recognizing and dealing with the changes in children's mental attitudes, lives and environment. School teachers today seem to have little insight into what children are thinking.<sup>136</sup> This can be exemplified by a survey conducted by the *Nikkyoso* (Japanese Teachers' Union) which found that, in one school, 82 per cent of pupils said that the subject they disliked most is Social Studies, followed by Science, English and Mathematics.<sup>137</sup>

Moral education can be considered a "late-developing" area in Singapore and Hong Kong. It was made compulsory in Singapore as late as 1982, when the government saw that the traditional values on which Singapore had prided itself rapidly vanishing.<sup>138</sup> In Hong Kong, moral education has not been a compulsory subject. However, as a result of concern expressed by community and religious leaders, heads of schools, and the Board of Education, the Education Department in 1981 published the "General Guidelines on Moral Education in Schools". However, this publication has been criticized on the grounds that it does not make clear greatly what virtues and values it seeks to uphold.

It is difficult to evaluate the effects of moral education, but it is significant that concurrently with the introduction of moral education, there have been reports of a decline in traditional virtues and an increase in juvenile delinquency. The ICAC conducted a survey of the moral conception of primary pupils in Hong Kong in 1986. The survey attempts to evaluate pupils' conception and behaviour in five areas: attitudes towards money, sense of responsibility, honesty, altruism, and self-image. The results suggest that the older the pupils (pupils of Primary 5 and 6),

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<sup>135</sup> Shiego Mausi, "The Problem of the Comprehensive Secondary School in Japan", *International Review of Education*, 17, 1971, 32.

<sup>136</sup> *Summary of Second Report on Educational Reform*, p. 6.

<sup>137</sup> Barbara Casassus, "Blinded by Science", *The Times Higher Education Supplement*, 11 Mar 1983, 15.

<sup>138</sup> See "Kun Fu Hits It Big in Singapore", *South China Morning Post*, 7 Feb 1982.

the more negative attitudes they possess in these respects.<sup>139</sup> Moreover, a survey conducted by the Hong Kong Education Department in 1984/85 also reports an increase in unruly behaviour.<sup>140</sup> In Japan, despite the introduction of compulsory moral education in 1958, moral lessons are always met with apathy, and the effects are deemed unsatisfactory.<sup>141</sup> Cummings asserts that there are increasing signs that a counter-culture is emerging, towards hedonism and even hooliganism. An example is seen in the *bosozoku* gangs of motorcyclists who terrorize the streets and highways on weekend nights.<sup>142</sup> The Second Report of the Provisional Council also points out that the crisis of schools today is manifest in the "desolation" of education, the symptoms of which include bullying and school violence.<sup>143</sup> The First Report simply asserts that "moral education at school is not effectively provided due to various factors such as teachers' negative attitudes, their inadequate capability for moral teaching and the insufficient systematic instructional arrangements for moral education."<sup>144</sup> The incidence of juvenile delinquency reached a peak record of 17.1 per 1,000 population aged 14 to 19, some six times higher than the 2.8 incidence for the adult population in the same year.<sup>145</sup>

There are many reasons for the lack of success of moral education. In the context of this thesis, it is argued that the main problem has to do with the nature of modernization. According to the Modernization theorists, in the process of modernization, there will emerge the *modern man* who holds modern values and

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<sup>139</sup> See *Wah Kiu Yat Pao*, 20 Feb 1987.

<sup>140</sup> See "Unruly/Delinquent Behaviour in Schools and Juvenile Crime", Hong Kong Education Department Circular, 10 Sep 1986. T. S. Lee also reports that increase in juvenile delinquency has been obvious since the seventies. For the details, see T. S. Lee, "Juvenile Delinquency and Its Influences" (in Chinese), *Social Services Council Quarterly*, 76, Spring 1981, 2-12.

<sup>141</sup> Although moral lessons are compulsory at the lower secondary level, it is not graded as the other subjects. Consequently, many lessons are turned over to mathematics or science when examination pressure is felt. See Barbara Casassus, "In a Dilemma over Morals", *The Times Educational Supplement*, 7 Nov 1986, 20 and Dixon Y. Miyauchi, "Textbooks and the Search for a New National Ethics in Japan", *Social Education*, 28, Mar 1964, 137.

<sup>142</sup> Cummings, "Japan", in Clark, ed., *op. cit.*, p. 152.

<sup>143</sup> *Summary of the Second Report on Educational Reform*, p. 4.

<sup>144</sup> *First Report on Educational Reform*, p. 20.

<sup>145</sup> Tsukasa Kitajima, "The Rise in Juvenile Delinquency", *Japan Echo*, 9 (Special Issue), 1982, 84.



exhibits modern behaviour.<sup>146</sup> Or in the term of Berger et al., modern societies engender men with a specific modern consciousness.<sup>147</sup> This again relates to the earlier discussion that technological development will by no means be value-free but value-bound. A society heading towards Modernity will be increasingly characterized by modern values.

Applying this to the issue of moral education, to carry out moral education in modern Asian societies is problematic in two respects. In the first instance, it comes back to the tensions between traditionalism and modernity. As Tham contends, the co-existence of traditionalism and modernity produces a dialectical interplay of forces acting on value development.<sup>148</sup> The society will run into a dilemma if it tries to educate its citizens to develop attitudes and values appropriate to the rapidly changing and modernizing world on the one hand and which will uphold its traditions on the other. For example, in Singapore, Tham, an acute observer, considers that "achievement, individualism and rationalism permeate the entire social fabric, allowing little room for sociability and the cultivation of moral perfection". Chen agrees, "The modern Singaporean is emancipated from the traditional ways of life and he is more optimist, independent, self-centered, achievement-orientated, and materialistic in his outlook."<sup>149</sup> Yet what the government wants is social cohesion where the people are "all rooted in their traditional values, cultures and languages."<sup>150</sup> The essence of developing moral education is thereby to uphold ancient principles, restore filial bonds and family ties, etc. Nevertheless, as critics say, "Singapore has become too westernized to be restored to a Confucian society that it never was.... Lee Kuan Yew cannot erase the influences of television, and an

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<sup>146</sup> See Alex Inkeles and David H. Smith, *Becoming Modern: Individual Change in Six Developing Countries* (London: Heinemann, 1974), pp. 19-32; Alex Inkeles, *Exploring Individual Modernity* (New York: Columbia University Press, 1983), pp. 31-51.

<sup>147</sup> Berger, Berger and Kellner, *op. cit.*, pp. 102-4.

<sup>148</sup> Tham Seong Chee, *Schools and Value Development in Singapore*, Reprint from RIHED Bulletin, 8(1), 1981 (Singapore: RIHED, 1981), p. 17.

<sup>149</sup> *Ibid.* and Chen, "Changing Values and the Individual", p. 61.

<sup>150</sup> Lee Kuan Yew, "Speech at the Seminar on Communism and Democracy, 28 Apr. 1971" in F. L. A. Dogulas, *Excerpts of Speeches by Lee Kuan Yew on Singapore 1959-1979* (Singapore: University of Singapore Library, 1976), p. 70.

emerging culture created by affluence and spurred by Singapore's pursuit of high technology."<sup>151</sup> This is where the dilemma resides.

Considering Japan's case, William Caudill maintains that a number of traditional cultural traits co-exist with the process of modernization, and so there is a difference between cultural change and social change.<sup>152</sup> However, if we accept that society is not composed of discrete entities but is an organism composed of integrated sectors and changing one sector may affect the others through their interactions; if we accept that modern institutions exert pressures which produce modern personalities, as described in the study of Inkeles and Smith; if we accept that culture itself is not static but dynamic in nature, which implies that it can change and has been changing; and if we are reminded that Japanese culture is characterized as "borrowed culture", as the Japanese term it, which suggests that Japanese society is inclined to integrate foreign features into its own, there is no reason to suppose that Japanese culture can be inoculated against the influence of socio-structural changes towards modernity. When we find that traditional cultural features remain in modern Japanese society, it rather suggests that cultural change may be proceeding at a slower pace as compared to socio-structural changes. This supports Ogburn's cultural lag thesis, which maintains that when technological change takes place at a faster pace than cultural change, it will create disequilibrium between the new technology and the old social organizations, and this will further create stress and strain in the society.<sup>153</sup> In fact, while visitors of the country are impressed by the existence of many traditional traits in modern Japanese society, the Japanese people themselves are impressed by the rapidity of change.<sup>154</sup> To attempt to retain

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<sup>151</sup> See "Singapore's 'New' Morality", *South China Morning Post*, 11 Jan. 1982.

<sup>152</sup> William A. Caudill, "Social Change and Cultural Continuity in Modern Japan", in George A. DeVos, ed., *Responses to Change: Society, Culture, and Personality* (New York: D. Van Nostrand, 1976), pp. 27-45.

<sup>153</sup> William F. Ogburn, "The Hypothesis of Cultural Lag" in Amitai Etzioni and Eva Etzioni, eds., *Social Change: Sources, Patterns and Consequences* (New York: Basic Books, 1964), pp. 459-462. See also William F. Ogburn, *On Culture and Social Change*, ed. Otis Dudley Duncan (Chicago: The University of Chicago Press, 1964), pp. 86-95.

<sup>154</sup> For example, H. Hazama's study shows that the life-style of industrial workers in modern Japan is westernized in many respects. H. Kato reports that Japan's first post-war generation is

traditional attitudes or behaviour in a cultural-changing society will inevitably lead to tensions.

If, on the other hand, the government chooses to promote new attitudes that will suit the modern era, there will emerge the problem of what the new attitudes should be. These new attitudes should embrace not only traits of modernity but also of tradition at the same time. This problem is further accentuated when the contents of the "moral" texts are decided by the older generation which is relatively less modernized and more easily intrigued by the nostalgia complex. This dilemma can be seen, for instance, in the "General Guidelines on Moral Education" issued in Hong Kong. According to the Guidelines, moral education is currently considered essential for two reasons. First, there is the recent increase in juvenile delinquency; and second, moral education has traditionally been the central feature of education. For example, "Confucius and his followers advocated 'love', 'righteousness', 'courtesy', 'loyalty', 'honesty', 'filial piety', 'forgiveness' etc."<sup>155</sup> However, when turning to specific moral values for this modern era, the Guidelines takes a rather open and permissive stand, or more specifically an ambivalent stand, leaving the decision of right and wrong to the participants - the teachers and pupils - concerned:

Moral education should aim at cultivating in the pupils moral attitudes and social values through the development of reflective or critical thinking. Values are generally 'vague' and it can be argued that values cannot be taught, except by example. Very often value judgements tend to

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totally different in character from the older one. Toyoko Akiyama's study suggests that Japanese young people today tend to be more self-centred than community-centred. T. Sakaiya contends that loyalty and lifetime employment is vanishing today. The 1980 Report of the Prime Minister's Study Group on Economic Management in An "Age of Culture" concludes that Japanese people today are becoming individualized, self-expressive, carefree, self-protective and disunited. See Hiroshi Hazama, "Historical Changes in the Life Style of Industrial Workers", in Hugh Patrick, ed., *Japanese Industrialization and Its Social Consequences* (Berkeley and Los Angeles: University of California Press, 1976), p. 49; Kato Hitoshi, "Japan's First Postwar Generation", *Japan Echo*, 10(1), 1983, 84; Akiyama Toyoko, "Attitudes of Young People: Adolescence to Adulthood", *Japan Echo*, 9 (Special Issue), 1982, 73; Sakaiya Taichi, "Debunking the Myth of Loyalty", *Japan Echo*, 8(2), 1981, 26-29; and Hamaguchi Eshyun, "The 'Japanese Disease' or Japanization?" *Japan Echo*, 8(2), 1981, 45-46. Of course there are also scholars holding the opposite view. However, these examples suffice to show that cultural changes are taking place in Japan today, which cannot be overlooked or ignored.

<sup>155</sup> *General Guidelines on Moral Education in Schools* (Hong Kong: Education Department, 1981), p. 1.

change with time and what is regarded as a perfectly acceptable code of behaviour today could have been denounced as immoral two or three generations ago. *Technological change in turn brings about social and moral changes or at least raises moral questions for which tradition can provide no ready answers. Even if we have what may be called 'right' answers to current problems and can persuade our pupils to accept them, this will not help them when new problems come along. Therefore, if we try to give a dogmatic type of moral training to our pupils, they may find it difficult to respond to moral problems for which they have not been prepared.*<sup>156</sup>

The open attitude towards value development as set out in the Guidelines is very different from "The Image of an Ideal Japanese", which specifies a number of virtues to be developed in schools.<sup>157</sup> The Guidelines rightly adopts an open attitude to the changing environment, emphasizing a discovery approach rather than value inculcation. However, though it does cite some Confucian virtues and some universal virtues (such as respect, kindness, trustworthiness, and tolerance), the Guidelines is too general and too hesitant to give clear guidance in the modern Hong Kong context.

However, in dealing with what is not acceptable, it must be emphasized that there is no one universally accepted behavioural code, including those qualities mentioned, which can be applied to all circumstances, at all times, indiscriminately. One serious pitfall is to think that one can teach a set of general moral principles without any reference to particular situations since moral judgements may vary from one situation to another, both because circumstances alter cases and because teaching at a high level of abstraction is educationally unsound and ineffective for most children.<sup>158</sup>

Hence, the best summary of the above guidelines is that it is both situational and non-situational. It is situational in the sense that it emphasizes an openness to situations in terms of value. It is non-situational in that it never suggests what these values should be in the modern Hong Kong situation. What these passages suggest is that the authors of the Guidelines are themselves rather perplexed. On the one hand, they are anxious to cite some virtues, especially those with historical

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<sup>156</sup> *Ibid.*, p. 2, (emphasis mine).

<sup>157</sup> See Benjamin C. Duke, "The Image of an Ideal Japanese", *The Educational Forum*, 33-34.

<sup>158</sup> *General Guidelines*, p. 6.

or traditional origins, but on the other, they want to allow for the emergence of new virtues or values appropriate to modern society. But they are not yet certain what these are. Hence the Guidelines has attracted criticism since its publication, mostly on account of its ambiguity in value statement.<sup>159</sup>

Japan has similar problems as Nagai says, "Despite over eighty years of effort, neither Christian schools, which have sought a thorough reform of Japanese culture through the appropriation of the spiritual core of Western civilization as well as its science and technology, nor the traditionalist institutions, which have attempted to perpetuate Buddhism, National Learning, Confucianism, and other forms of traditional culture, have succeeded in bringing about a new integration of a Japanese culture caught in the violent social upheavals of industrialization and modernization."<sup>160</sup> Kitajima regards the rise in juvenile delinquency as a result of the bewilderment concerning the value systems which have been changing and diversifying since the war.<sup>161</sup>

Singapore suffers from the same dilemma, as is expounded in Eng's criticism:

Schools are left without guidelines and without clearly articulated and formulated standards to follow.... Schools often feel uncomfortable when called upon to instruct formally social and moral values. In part this is due to the ambiguity of such values in a society that is undergoing rapid change when signals from significant others are often contradictory and confusing. In part it is due to a lack of tradition in such tasks. Teachers' sense of insecurity and low status may partly account for this discomfort. The contradiction in values preached or taught in school and the values that are current at the societal level on the one hand and the incongruity of taught values and the school's social structural on the other add to the discomfort.<sup>162</sup>

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<sup>159</sup> For example, see Fang Su, "Impotent or Retarded? - Moral Education and the Adolescent Problems" (in Chinese), *The Seventies*, (151), Aug 1982, 89-90.

<sup>160</sup> Nagai, *Higher Education in Japan* p. 116.

<sup>161</sup> Kitajima, *op. cit.*, p. 88.

<sup>162</sup> Eng Soo Peck, "Education and Development: Era of Hope and Disillusionment", *Singapore Journal of Education*, 5(1), Jan. 1983, 18.

This dilemma constitutes a threat to the functions of schools in teaching youngsters to adapt to this changing world. Again, in Eng's words, "These are serious problematic areas that cannot be brushed aside as trivial and must be resolved if schools are to play a significant role in the social and moral development of the young."<sup>163</sup>

The second problem of carrying out moral education in this modern context is related to the nature of the modern capitalistic society or the "spirit of capitalism". For Weber, a crucial element in the rise of capitalism is a spiritual change which is characterized by the "protestant ethic". Protestantism is a source of many cultural features of the modern capitalistic society, such as individualism, achievement motivation, hard work, gratification delay, saving, and low-consumption.<sup>164</sup> And discussion here is centred on the issue of saving and consumption, which is strongly related to the spirit of materialism. The accumulation of capital is made possible through the ascetic compulsion to save, says Weber.<sup>165</sup> In other words, a virtue of modern capitalism is frugality, and the upshot of frugality is the accumulation of wealth. The problem resides here: what will follow from the accumulation of wealth? Here is the corollary. The wealthier one is, the more consumption power one will possess. The more consumption power one has, the more consumption one will make. And as a matter of fact, the consumption of wealth should be the reward of hard work and saving. If so, Webers' logic will run into a not-to-consume-to-consume paradox. And this paradox is most manifest in the problems of moral education in modern Asian societies today. All the three societies place emphasis on education as human investment for economic prosperity. Yet they complain that the youngsters are materialistic and hedonistic. And they want to restore their traditional values, one of which is presumably frugality. This is really a paradoxical expectation. No wonder their attempts are ineffective, and both school teachers

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<sup>163</sup> *Ibid.*

<sup>164</sup> Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, trans. Talcott Parsons (London: George Allen & Unwin, 1976), pp. 171-172.

<sup>165</sup> *Ibid.*, p. 172.

and pupils are perplexed. It is simply because their desire is simply problematic - they want to change but not to change.

It is worth-noting that Berger et al. point out another paradox in modernization:

There is an underlying paradox in all ideologies that seek to control or contain modernity, a paradox closely related to the phenomenon that we have called cognitive contamination: if one wishes to control modernization, one must assume one has an option and the ability to manipulate. Thus one may opt against modernity. Thus one will seek to manipulate the processes of modernization. These very ideas, however, are modern - indeed, modernizing - *in themselves*. Nothing could be more modern than the idea that man has a choice between different paths of social development.<sup>166</sup>

In the light of the paradox as suggested by Berger et al., if one wants to control the development of certain values in modern society, one may opt against modernization in enforcing some values that may not suit a modern society, for example, denouncing consumerism in these societies which are becoming affluent. On the other hand, if "choice" is really an essential element of modernity, one has to risk or to *accept* the emergence of a "counter-culture".

#### **D. The Limitations of Schooling**

All the above discussion points to the fact that there are certain limitations on the ability of schooling to meet the needs of these rapidly changing societies. Although there are quantitative expansion and policy changes, schooling is slow to reduce social inequality and to promote effective moral education for cultural learning. The crux of the problem seems to lie in the fact that schooling is a mirror of society, rather than the reverse. Schooling is basically instrumental for economic

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<sup>166</sup> Berger, Berger and Kellner, *op. cit.*, pp. 157-158.

growth, not for social equality or for cultural learning. When the main direction of schooling is orientated towards this technical goal, it is always achieved at the expense of the other goals. When the social structure tolerates inequality, or even finds inequality necessary as a feature of capitalistic society, it is unrealistic to demand that schooling should achieve social equality. When the major thrust of education is for economic development, it is no wonder that we find the Japanese as “economic animals”, the Singaporeans and the Hong Kongers as “ugly Singaporeans” and “ugly Hong Kongers”. As Coombs says, “Education by itself cannot take on the whole job of reforming society, its attitudes, and its reward structures. Education is too much a creature of society and too much an expression of its society for this to be possible.”<sup>167</sup> To avert this trend, the basic step seems necessarily to be a re-consideration of our social structures and of what the basic functions of schooling should be.

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<sup>167</sup> Coombs, *The World Educational Crisis*, p. 91.



Section Four

Education in

Credential Societies

## CHAPTER TEN

### BECOMING CREDENTIAL SOCIETIES

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#### A. The Emergence of the Credential Society

If the notion of education for human investment is problematic, why do countries still employ the concept and still practise manpower forecasting? And if education has done little to reduce social equality, why do countries hasten to expand educational provision?

A quick reply to the first question is that even though education may not produce the desired economic growth, the concept of human investment and the practise of manpower forecasting can at least serve as a guideline to avoid surplus or mismatch of manpower. Moreover, although this approach to education is not satisfactory, other approaches are even less trustworthy and methodologically more demanding. Further, the application of manpower forecasting in educational planning requires complicated surveys and calculations, hence it is difficult to challenge.<sup>1</sup>

The answer to the second question is that education can at least provide a means for everyone to climb the social ladder by merit. Education can become the essence of a meritocracy. As Michael Young says, in a meritocratic society, the only ladder that matters is the educational one, even the captains of industry have

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<sup>1</sup> Cheng Kai Ming, "Manpower Forecasting in Educational Policy-making: The Case of Hong Kong" in *Selected Papers from the First Annual Conference, 1985* (Hong Kong: Hong Kong Educational Research Association, 1985), p. 204. See also M. Woodhall, "Manpower Planning and the Demand for Qualified Manpower" in M. Woodhall, *The Planning of Higher Education: The Social Demand* (Milton Keynes: Open University Press, 1977), p. 48 and R. Hollister, "A Perspective on the Role of Manpower Analysis and Planning in Developing Countries" in G. Psacharopoulos et al., *Manpower Issues in Educational Investment: A Consideration of Planning Processes and Techniques* (Washington, D.C.: World Bank, 1983), p. 59.

to fit in.<sup>2</sup> All three societies discussed here, pride themselves on having created a meritocracy. For example, it is said that in Japan “not even the prime minister’s son can enter a top university unless he can compete well on his own.”<sup>3</sup> With regard to Singapore, Lim says, “meritocracy has become a key word and a way of life in Singapore ... through education, many have been able to rise to the top on the basis of merit.”<sup>4</sup>

Since education is a vital element in a meritocratic society and thus an essential means for upward mobility, this leads to a consideration of another of its functions. Namely, not only does education train people, at the same time it functions as a sorting mechanism. The modern educational system provides a means of distinguishing the more capable ones from the less capable. That is, the more capable one is, the higher up the educational ladder one can climb, and the longer one stays in the educational system. And the longer one can stay in the educational system, the higher social ladder one can climb. Modern education today thereby serves a two-fold function - it nurtures merit and it distinguishes merit. The culmination of merit distinction always takes place at the end of a certain stage of education through examination. It is widely believed that examination is the most objective means to evaluate capabilities or merits. The performance in examination thereby becomes a credential of merit for the people concerned. This belief in meritocracy which is achieved by education, examination and educational credential is widely held in the three societies studied here.

The significance of educational credential in social differentiation can be traced in Weber’s discussion of bureaucracy. According to Weber, under universal bureaucratization, the role of property and economic function in social differentiation

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<sup>2</sup> Michael Young, *The Rise of the Meritocracy* (Harmondsworth: Penguin Books, 1961), p. 83.

<sup>3</sup> Hikaru Kerns, “The Pinnacle is Tokyo University”, *Far Eastern Economic Review*, 14 Jun 1984, 83.

<sup>4</sup> Lim Chong Yah, “Singapore’s Economic Development: Retrospect and Prospect”, in Chen, ed., *Singapore: Development Policies and Trends*, p. 100. In the case of Hong Kong’s meritocracy, see K. M. Cheng. “A Review of Eleven’s Education”.

declines and is increasingly replaced by educational credentials. In his words:

The development of the diploma from universities, and business and engineering colleges, and the universal clamour for the creation of educational certificates in all fields make for the formation of a privileged stratum in bureaus and in offices. Such certificates support their holders' claims for inter-marriages with notable families ... and above all, claims to monopolize socially and economically advantageous positions. When we hear from all sides the demand for an introduction of regular curricula and special examinations, the reason behind it is, of course, not a suddenly awakened "thirst for education" but the desire for restricting the supply for these positions and their monopolization by the owners of educational certificates. Today, the "examination" is the universal means of this monopolization, and therefore examinations irresistibly advance.<sup>5</sup>

The notion of credential society was elaborated in the late seventies by two distinguished scholars, one in England and the other in America. In 1976, Ronald Dore, drawing on his experience of education both in England and in some other "late-developing" countries, published *The Diploma Disease*, which alleges that the function of modern education has become qualification earning.<sup>6</sup> In 1979, Randall Collins published *The Credential Society*. In the light of his analysis of the educational history of the United States, he suggests that the major function of education has been to serve the Credential Society.<sup>7</sup>

Both Dore and Collins begin with demystifying the current belief that education as human investment can lead to technological development. Emphasis on education for technological development constitutes the root of the diploma disease. With reference to the experience of England, Dore alleges that it was not until industrialization was well under way that the state began to play a more significant role in the direction of the educational system. Before that, the occupation of a man depended chiefly on family connections, apprenticeships, and competence dur-

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<sup>5</sup> Max Weber, *From Max Weber: Essays in Sociology*, trans. and ed. H. H. Gerth and C. Wright Mills (London: Routledge & Kegan Paul, 1948), pp. 241-242.

<sup>6</sup> Ronald Dore, *The Diploma Disease: Education, Qualification and Development* (London: George Allen & Unwin, 1976).

<sup>7</sup> Randall Collins, *The Credential Society: An Historical Sociology of Education and Stratification* (New York: Academic Press, 1979).

ing apprenticeship and on the job. However, gradually public authorities played a more significant role in the definition of competence, beginning with the professions of most direct public concern such as medicine. Then general educational qualifications granted by the core educational system began to play an increasing role in the control over access to occupations. As a result, the social definition of the purpose of education has changed, and thereby the motivation of students and the quality of learning.<sup>8</sup>

The developing countries that have embarked on modern education in the wake of the advanced countries have an underlying motive to produce as soon as possible modern manpower for modernization. In other words, they want to develop in the shortest possible time the modern sectors (factories, government offices, hospitals, clinics, and the like), which are to be operated by modern experts (civil engineers, factory managers, architects, doctors, accountants, teachers, and etc.) who possess the same skills, the same outlooks, and most significantly, the same qualifications as their Western counterparts. Once education has become the prerequisite for a place in the modern sector, more and more people want it. This therefore leads to a quantitative expansion in educational provision.

Nevertheless, the experience of many developing countries suggests that not only have the targets of many development plans remained unfulfilled, but the increasing demand for education has spawned a new species, namely, the “educated unemployed”. In addition to the existence of this paradoxical situation, another side-effect emerges. The worse the situation of the educated unemployment, i.e. the less useful a certain educational credential has become, the stronger is the urge for obtaining further educational credentials. This has led to the phenomenon of the so-called qualification inflation. And this creates a vicious circle of more educated unemployment and further qualification inflation. In this process, *education* is reduced to qualification earning. The phenomenon of “schooling without edu-

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<sup>8</sup> Dore, *op. cit.*, p. 15.

cation" thus occurs. People *learn* in schools not for self-fulfillment but merely as deficiency-motivated beings whose need (for credentials) can only be satisfied from without.<sup>9</sup>

Arguing in a different vein, Collins, drawing on the evidence from his own empirical studies and that of others', suggest that the notion of education for technocracy is more or less a myth. He challenges the belief that the better educated employees are more productive. His findings reveal that education and productivity are not necessarily positively correlated, and in some cases the better educated can be less productive or counter-productive.<sup>10</sup> He further suggests that many of the skills used in managerial and professional positions are learned on the job. Findings show that there are very low correlations between college grades and the success of students trained in business, engineering, medicine, school teaching, and scientific research.<sup>11</sup> One of his studies argues that education operates as normative control rather than as technical training.<sup>12</sup> This is really what the employers desire. They want to recruit those who have acquired the proper values and attitudes of work (which are obtained through education) and over whom they can exercise normative control.<sup>13</sup> In this way, education serves as a gatekeeper to make possible cultural selection.

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<sup>9</sup> Dore, *op. cit.*, pp. 1-9.

<sup>10</sup> Collins, *op. cit.*, p. 15. Cf. I. Berg, *Education and Jobs* (New York: Praeger, 1970), pp. 85-104, 143-176.

<sup>11</sup> Collins, *op. cit.*, pp. 19-20. Collins' contention is supported by many recent studies. For example, a recent comparative study conducted by Angela Little also suggests that there are no consistent correlations between education and productivity. See Angela Little, "Education, Earnings and Productivity - the Eternal Triangle", in John Oxenham, ed., *Education versus Qualifications? A Study of Relationships between Education, Selection for Employment and the Productivity of Labour* (London: George & Unwin, 1984), p. 91.

<sup>12</sup> Randall Collins, "Where are Educational Requirements for Employment Highest?" *Sociology of Education*, 47, Fall 1974, 440. This coincides with the employers' attitude in recruitment. He cites the observation of Gordon and Howell that industry employs people with degrees not because the degrees ensure technical competence but because they provide a dividing line between the more trained and the less, the more motivated and the less, and those with more social experience and those with less. Cf. Robert A. Gordon and James E. Howell, *Higher Education for Business* (New York: Columbia University Press, 1959), p. 121.

<sup>13</sup> Those who cannot conform to the values that are promoted in schools are likely to drop out. See Collins, *The Credential Society*, p. 32.

Education does not only function as a cultural gatekeeper for employers to select their employees, it also facilitates the organizational elites to select new members. The significance of elite education is highest in this respect. Schools that produce the most elite graduates (normally professional schools attached to the elite colleges and universities), are found to be most closely linked to elite occupations. Consequently the recruits to the prestigious law firms and the business companies, for instance, have always been highly educated compared to the rest of the populace. Interestingly, education seems to be a correlate of their social origins as the elite recruits are generally drawn from relatively high social classes.<sup>14</sup> Schools thus become culture-producing organizations which produce “cultural products” to make possible cultural selection. When these culture-producing institutions not only advertise their cultural products but also make formal announcements of the quantity of cultural goods an individual has acquired from them (i.e. grades and certificates acquired in the schools), the operation of the cultural production system resembles that of a currency system. The “price” of the social memberships that culture can “buy” can undergo inflation, as a result of “monetary over-supply”. Thus the process of widening educational opportunities may bring little or no change to the stratification among groups, as the cultural price may change according to demand and supply of cultural products.<sup>15</sup>

Like Dore, Collins contends that the phenomenon of credentialism is not confined to the American experience, it takes place in other polities as well. Hence there exists a variety of forms of credentialism, such as credential capitalism, credential socialism, ethnic-patrimonial credentialism or patronage-credentialism, credential

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<sup>14</sup> *Ibid.*, p. 36-8. Dore and Oxenham also come to similar conclusion. They suggest, “In some countries private schools and possibly universities are the preserve of relatively small groups of better-off people. In part they help transmit the culture of the rich, and in part they enable the rich to sustain superior scholastic levels.” See Ronald Dore and John Oxenham, “Educational Reform and Selection for Employment - An Overview”, in Oxenham, ed., *op. cit.*, p. 34.

<sup>15</sup> Collins cites two examples of inflation in the cultural price. In China during the 16th-19th century, when increasing numbers of people sat for the civil service examinations but the number of government positions was kept virtually constance, it led to a more elaborated system of examination. In Germany around 1800, when a mass of applicants for government positions crowded the universities, extended educational requirements were resulted. *ibid.*, p. 66.

fascism, credential radicalism, credential Keynesianism, credential abolitionism, and so forth.<sup>16</sup>

The thesis of credentialism is supported by many other writers. For example, K. J. Arrow suggests that the major function of higher education is more or less that of “filter”.<sup>17</sup> Ivan Illich alleges that modern schooling has been reduced to packaging instruction cented on certification production.<sup>18</sup> Studies by John Oxenham, Angela Little, Keith Lewin, Nigel Brooke and Jonathan Unger not only provide empirical evidence to justify the doubts about the belief in the positive relationship between education and productivity, but also provide cross-cultural evidence that credentialism is a worldwide phenomenon.<sup>19</sup>

## **B. Credentialism in Japan, Singapore and Hong Kong**

As Dore says, the later a country embarks on modernization, the more readily the country will widely employ educational credentials for occupational selection. In addition to the reasons cited above, there is another obvious cause leading to this phenomenon. As time goes by, the system of educational credentials becomes more elaborated and refined in the advanced world and this is copied by other countries embarking on development. Hence, these late-developing countries not only import the technology *per se*, but also the latest social technology, i.e. the latest credential system.<sup>20</sup>

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<sup>16</sup> *Ibid.*, pp. 195-8.

<sup>17</sup> K. J. Arrow, “Higher Education as a Filter”, *Journal of Public Economics*, 2, 1973, 193-216.

<sup>18</sup> Ivan Illich, *Deschooling Society* (Harmondsworth: Penguin Books, 1973), pp. 19ff.

<sup>19</sup> The details of their works are collected in Oxenham, ed., *op. cit.* See also William Tyler, “Complexity and Control: The Organisational Background of Credentialism”, *British Journal of Sociology of Education*, 3(2), 1982, 161-172.

<sup>20</sup> *Ibid.*, p. 73. However whether this effect will come about depends on three variables: whether there are people with thrusting entrepreneurial talents, so that the development of business counts on performances rather than educational credentials; whether the government will deliberately counter the growth of credentialism; and whether the economic and strategic circumstances permit the presence of the above two variables. See *ibid.*, p. 74.



Japan, Singapore and Hong Kong have every incentive to modernize, as has been argued. All of them have embarked on modernization in the wake of the advanced Western countries. In the course of modernization, Japan's ruling-class tradition was discontinued. The ruling-class traditions of China virtually do not exist in Singapore and Hong Kong, Singapore being a newly independent state and the development of Hong Kong started as a colony in which a new form of bureaucracy was introduced. All of them have their modern educational systems - the latest social technology - introduced from the West, mainly from the United States in the case of Japan, and Britain in the case of Singapore and Hong Kong. All of them have developed their own government bureaucracy; and in all three societies the large firms play a decisive role in the process of industrialization. Hence, in all three societies, educational qualifications are common criteria in the government bureaucracy and the big companies to select their recruits.<sup>21</sup> As Rodney Tasker points out:

In Prime Minister Lee Kuan Yew's Singapore, as in other predominantly Chinese communities such as Hong Kong and Taiwan, a great deal of pressure is brought to bear on the young to shine academically. In what critics label an elitist system, college graduates can expect to gain an unusual amount of official kudos. Unofficially, most graduates expect their degrees automatically to open doors to well paid jobs, whether in government service or the private sectors.<sup>22</sup>

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<sup>21</sup> It is interesting that Dore cites Hong Kong as an exception to credential-dominated society. According to Dore, what one actually knows and can do are decisive determinants of one's status and income in Hong Kong. And in this society, there is no sharp dualistic division between a highly desirable modern sector and an impoverished, despised, traditional sector typical of most developing countries. There are two main reasons for this. First, Hong Kong possesses a large pool of clever, innovating businessmen who were capable of expanding their small scale family business into large companies. Second, as a colony, government employment comprises a small proportion of the total employment. However, Dore does concede that the situation is changing, as government employment is expanding and so are big multi-national corporations which are large enough to employ a more "rational" method (based on educational credentials) in recruitment. See *ibid.*, p. 73. I suppose that this analysis can be applied to Singapore as well, as it is accommodated by a bulk of immigrants who also expanded their small family business into large corporations. And the dualistic division between the modern sector and the traditional sector is not intense. However, credentialism should have developed earlier as it has developed its own government bureaucracy earlier, since independence in 1969.

<sup>22</sup> Rodney Tasker, "Education: A System Geared for the Best and Brightest", *Far Eastern Economic Review*, 11 Jul 1985, 36.

Commenting on the educational system of Singapore, C. C. Toh, the past PAP Chairman, asserts that "certification is all that counts. (Pupils) get a certificate when they finish kindergarten, another after primary school, secondary school, junior college - all the way through."<sup>23</sup> Likewise, N. K. Lo comments that Hong Kong is a credential-conscious society where educational credentials determine a person's occupational status which may in turn influence his social and economic status and access to political power. Hence, formal schooling in Hong Kong is significantly related to life chances.<sup>24</sup> In Japan, the significance of educational credentials beyond question. Terms such as "degreeocracy", "educational backgroundism" and "credentialism" are all widely used in in the literature of the social sciences.

The different stages of education in the three societies, a number of specific examinations, and the different types of education offered at the secondary and the higher education sectors all provide educational credentials of different material significance.<sup>25</sup> In Singapore, for instance, in terms of salary, the university graduates in general earn three to four times more than the pre-university graduates<sup>26</sup> According to the pay scale system of the civil service in Hong Kong, in 1984, for example, the starting point was 20 (about HK\$5,600) for the university graduates, whereas it was 14 (about HK\$4,000) for candidates who had passed the matriculation examination, and 5 (about HK\$2,250) for those who had passed the HKCEE.<sup>27</sup>

In Japan, educational credentials are becoming increasingly important in employment. It was calculated that whereas only 18 per cent of all jobs were filled on the basis of educational qualifications in 1920, the proportion rose to 39 per cent

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<sup>23</sup> Toh Chin Chye, "We're Ball-bearings, Quality-Controlled" (An Interview with Toh Chin Chye), *Asiaweek*, 7 Sep 1984, 38.

<sup>24</sup> L. Nai-Kwai Lo, "Developmental Efficacy of Nonformal Education: A Survey of Conflicting Theories," *CUHK Education Journal*, 12(1), 1984, 52.

<sup>25</sup> For the details of the qualification details, please refer to the section of educational background which outlined the qualifications obtained in their respective educational systems.

<sup>26</sup> *The Students Report on University Education in Singapore* (Singapore: NUS Students' Union, 1980).

<sup>27</sup> Wu Mingqin, *The Development of Local Education and the Future of Hong Kong* (in Chinese) (Hong Kong: Genius Publishing Company, 1984), p. 33.

in 1965.<sup>28</sup> Among a great variety of credentials, the university a degree are most highly valued. In 1930, 72 per cent of the middle- and upper-level managers in private companies and 57 per cent of engineers were holders of higher education qualifications.<sup>29</sup> Traditionally, the requirement of degrees was confined to the government and large firms. For example, in the 1910s, over 50 per cent of the graduates of Tokyo and Kyoto Universities took up some type of government employment. In the early seventies, about 75 per cent of the higher civil service came from Tokyo University alone. However, this requirement has increasingly proliferated to the other sectors as well. For example, a "middle school education or its equivalent" is required for a skilled workers in some factories. Higher education is increasingly required for white collar jobs.<sup>30</sup> Of particular significance are the degrees conferred by the most prestigious or elite universities and colleges. As C. Nakane points out, there is a close relationship between the highest-ranking industrial plants or business firms and the highest-ranking universities. And there is a tendency for these top-ranking companies to limit applications strictly to the graduates of top-ranking universities.<sup>31</sup>

Hence educational credentialism takes two forms in Japan. The first is vertical. For example, a certificate of higher education is more highly valued than that of upper secondary education, and so downward. The second is horizontal. Among graduates of the same level of education, a certificate conferred by an elite institution is more highly valued than one conferred by other institutions.<sup>32</sup> As Hong Kong has only two universities and Singapore has only one, the vertical form of credentialism is the more obvious in these societies. The horizontal form of credentialism, on the other hand, takes place more obviously at the secondary level. However even at the

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<sup>28</sup> William K. Cummings and Atsushi Naoi, "Social Background, Education, and Personal Advancement in a Dualistic Employment System", *The Developing Economies*, 12(3), 1974, 250.

<sup>29</sup> Ikuo Amano, "The Dilemma of Japanese Education Today", *The Japan Foundation Newsletter*, 13(5), Mar 1986, 4.

<sup>30</sup> Kazuyuki Kitamura and William K. Cummings, "The 'Big Bang' Theory and Japanese University Reform", *Comparative Education Review*, 16(2), Jun 1972, 311.

<sup>31</sup> Chie Nakane, *Japanese Society* (Harmondsworth: Penguin Books, 1970), p. 117.

<sup>32</sup> Michiya Shimbori, "The Academic Marketplace in Japan", *The Developing Economies*, 7, Dec 1969, 619.

higher education level, university credentials are certainly of higher value than those conferred by other higher education institutions, such as polytechnics and colleges.

As Dore and Collins argue, the emergence of the diploma disease or credentialism is a result of the emphasis on the selective function of education, whether it is merit selection or culture selection. Such emphasis is clear in the three societies, and is mainly reflected in their common reliance on the examination mechanism which takes place at different stages of education.

In Hong Kong, the Secondary School Entrance Examination (SSEE) was mainly designed for selection, since up to 1965, only 15 per cent of the primary school leavers were eligible for government assisted secondary school places.<sup>33</sup> In 1962, a statement of government policy on the reorganization of the educational structure stated that entry to government and aided secondary schools would continue to be by "selective examination".<sup>34</sup> Hence the selective function of the examination was clear from the beginning. With the introduction of free and compulsory education up to the junior secondary level, the Secondary School Entrance Examination was abolished, but a new examination was introduced at the end of junior secondary level - the Junior School Assessment Examination. The spirit of this examination was once again selection, allocation and certification.<sup>35</sup>

A selection device was deemed essential as only 60 per cent of the 15-16 age group could be eligible for government-assisted school places at the senior secondary

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<sup>33</sup> See *Education Policy* (1965 White Paper), pp. 5-6. The earlier form of the SSEE was a joint primary six certificate examination, which was proposed by the *Fisher Report* to serve the functions of both selection and certification. A Lower School Leaving Certificate was also proposed to be granted to those who passed the examination. Cited by Sweeting, *The Social History of Education in Hong Kong*, Chapter Seven.

<sup>34</sup> Cited by *ibid.*, Chapter Eight.

<sup>35</sup> As the 1974 White Paper on Secondary Education states, "Firstly, it will provide evidence that a pupil has satisfactorily completed his education to Form III standard, which should assist him in securing employment if he leaves school at this stage. Secondly, it will serve as the means of selection for those who wish to continue their studies beyond Form III." See *Secondary Education in Hong Kong During the Next Decade* (1974 White Paper), p. 8.

level.<sup>36</sup> By the same token, the Hong Kong Certificate of Education Examination (HKCEE) taken at the end of senior secondary schooling has been used for selection. Ostensibly it is “a test of general education”. However it is also used as a reference for recruitment by employers, and it is the basis for selection for entry to sixth-form courses,<sup>37</sup> and it serves as a qualification for entry to a variety of tertiary level courses.<sup>38</sup> The matriculation examinations taken at the end of sixth form education are also used to select students to be admitted to institutions of higher education and as qualifications for employment.

In Singapore, students are streamed and selected for different courses which signify different abilities at intervals of three or four years. What is relevant here is that there is a quota of places allocated for each course. For example, based on the Primary 3 school-based tests, 60 per cent all primary pupils are selected to continue their primary education in the normal course, 20 per cent in the extended course, and another 20 per cent in the monolingual course. The 60 per cent selected are considered to be of “normal” abilities, and those in the other two courses spend more years on the primary course or are only taught one language. Based on the Primary School Leaving Examination, secondary students are once again selected to be placed in different courses. The 8 per cent “brilliant” pupils are selected to enrol the special bilingual course, the 31 per cent “above average” pupils are selected to enrol in the normal bilingual stream course, and the remaining 41 per cent “average” pupils are selected to enrol in the ordinary course. The “average” pupils are required to sit the Certificate of Secondary Education (CSE) examination at the end of their four years of secondary education in order to qualify themselves to sit the GCE examinations. However the “above average” and the “brilliant” pupils are not required to sit this preliminary examination. The GCE examinations

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<sup>36</sup> According to the 1974 White Paper, the proportion was to be limited to 40 per cent, but the 1978 White Paper raised it to 60 per cent. See *The Development of Senior Secondary and Tertiary Education* (1978 White Paper), p. 6.

<sup>37</sup> Only about one-third of senior secondary school leavers can gain access to government assisted sixth form places. See *Secondary Education in Hong Kong During the Next Decade* (1974 White Paper), p. 5.

<sup>38</sup> *The Hong Kong Education System*, pp. 185-186.

constitute the basis of selection for university entry.<sup>39</sup>

In Japan, almost everyone proceeds to upper secondary schools. Hence the most important selection test takes place at the end of upper secondary schooling. This is the famous university entrance examination. To the Japanese, the examination is proof of one's "latent ability". Hence, not only do elite institutions of higher education select their students through the national entrance examination and the entrance examination conducted by themselves, but employers simply choose these examination winners who can enrol in the elite institutions without bothering how well they achieved academically.<sup>40</sup>

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<sup>39</sup> See "Notes on the New Education System", *Singapore Undergrad*, (Special Issue), Dec 1979, 13-14; and *Goh Report*, pp. 6.1-6.4.

<sup>40</sup> Ryushi Iwata, "Advancement in a Schooling-Conscious Society", *Japan Echo*, 6(4), 1979, 21.

## CHAPTER ELEVEN

### PROBLEMS OF CREDENTIALISM

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A characteristic contribution of educational credentialism is standardization. Credentialism makes possible a standardized classification of the of the schools. It facilitates selection of students to advance up the educational ladder and eventually selection for employment. It gives the government and industry an idea of the qualities of their new recruits. Moreover, in the process of modernization, it facilitates manpower forecasts and the calculation of the rates of return from human investment. It also provides a relatively stable means of assessing graduates in the context of rapid change. However, despite all these advantages, there are many questions to be asked.

#### A. How Fair is Selection by Credentials?

The stress on credentialism has made selection the major objective of education. This is exemplified by the fact that in the three societies, there are some "squeeze points" of selection. For example, in Hong Kong, the proportion of pupils who are able to obtain assisted senior secondary school places is decided before the pupils sit for the JSEA. In Singapore, the proportions of pupils to be placed in different courses at the primary and secondary levels in Singapore is virtually fixed before the examination is taken. Hence, the basis of selection does not depend upon the absolute marks a pupil obtains in the examination but his relative performance as compared to the other examination participants. Likewise in the HKCEE it is the relative standards that determine the grade of each subject a candidate has taken. As a result, when the schools and the universities consider offering a place

to an applicant, it is the relative examination results rather than the absolute results that matter. In other words, it is how well one competes rather than how well one performs that determines one's future. The more the applicants, the higher is the "cut-off" point. This is exactly what happens in the admission process of the universities. Each year, the universities adjust the "cut-off" points in their consideration of admission.<sup>1</sup> In the case of Japan, taking into account the escalator system which admits students from those high schools which are related to the universities, the openings for other applicants are strictly limited.

If it is the relative standards rather than the absolute standards that determine selection, the basic principle of meritocracy is brought into question. When a student has performed well or is even above average in an examination but cannot be selected for further education or for certain jobs because of the limited places available, what will the *merit* he has gained mean to him? It can be said that what is meant by merit in practice refers to relative merit and there is actually no absolute merit *per se*, as merit becomes merit only by comparison. However, when a candidate who was not admitted in a particular year submits his application again in the next year and is eventually admitted, what sort of meritocracy is it? When obtaining certain grades in a certain examination in a certain year does not guarantee selection in that year, what will these grades mean to him? Is it luck, chance or fate rather than by merit *per se* that determines whether the candidate is chosen? When it is not *merit* that matters but competition or chance or fate, the meritocracy that these societies have boasted of is only a myth.<sup>2</sup>

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<sup>1</sup> "The Faculty entry point is not rigidly fixed for all years, but is subject to some variation, inevitably, however, varying upwards, depending on the staff position, the number and qualifications of the applicants, the facilities available, and also of particular importance, the employment prospect of each discipline." See Lim Chong Yah, "Mass Versus Selective higher Education in Southeast Asia - The Responses of the University of Singapore" in Amnuay Tapingkae, ed., *The Growth of Southeast Asian Universities: Expansion Versus Consolidation* (Singapore: RIHED, 1974), p. 125. See also Seah Chee Meow, *Student Admission to Higher Education in Singapore* (Singapore: RIHED, 1983), p. 39.

<sup>2</sup> As a result, according to a study of the University of Hong Kong, about 60-70 per cent of secondary students in Hong Kong are fatalistic in their attitudes of life. See Lam Man Ping, "The Values of Hong Kong Adolescents" (in Chinese), *CUHK Education Journal*, 11(1), Jun 1983, 57.



## **B. The Inflation in Credentials**

The more widely is selection based on educational credentials, the faster the rate of inflation in credentials. The reason is obvious. When schooling is significant for obtaining credentials, more people attend schools because they want credentials. When credentials become a more important means of upward mobility, more people desire credentials and thus more people desire schooling. Furthermore, the more equal opportunity is adopted as an ideal in a society, the more will people press the government to expand educational provision, and school enrolments will expand. When more people can gain access to schooling and thus educational credentials, and when this growth is faster than that of job opportunities, inflation in credentials will take place. Hence the faster the educational system grows, the faster will educational credentials inflate.<sup>3</sup>

There are some indications of credential inflation in Singapore. First, in a study of educational opportunity, it was found that most English-medium school-leavers aspired to professional jobs but only a few people could actually obtain one. In 1966, 45 per cent of the English-medium secondary school leavers wished to obtain professional jobs, but only 26.88 per cent could succeed. On the other hand, only 9.7 per cent of the school-leavers chose general office work but more than 49.5 ended up into this field.<sup>4</sup> Second, because of the expansion in university enrolment, from 3,000 in 1980 to 4,400 in 1984, graduates are having problems finding good jobs immediately. As Tasker says, "While until last year (1984) new graduates could be choosy about accepting job offers, this year's crop is expected to find the search for employment tougher than before."<sup>5</sup>

In Japan, the demand for certificates of higher education has been phenomenal.

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<sup>3</sup> Dore, *The Diploma Disease*, pp. 75-78.

<sup>4</sup> Yip Wing Kee, "The Occupational Choices of English-medium Secondary School-leavers in Relation to Education and Vocational Opportunity", *Malaysian Journal of Education*, 4(1), 1967, 48.

<sup>5</sup> Tasker, *op. cit.*

Surveys showed that in 1980, 80 per cent of all upper secondary school freshmen aimed at a higher education.<sup>6</sup> The expansion of higher education is outstanding in Japan, and so is the credential inflation. According to Cummings and Naoi, the educational system has provided more than enough people to meet the needs of the organizational sector since 1945. As a result, in 1960, about 36 per cent of the university graduates had to take clerical and sales jobs, while these occupations only accounted for 20-30 per cent of graduates in the United States and Canada, and less than 20 per cent in all other advanced societies.<sup>7</sup> K. Imazu et al. reported that they heard of university graduates who worked in restaurants, became firemen or taxi drivers, or went on to vocational training schools.<sup>8</sup>

Inflation in credentials has implications for education. As it is always through examination that a particular credential is issued, the more education is orientated towards issuing credentials, the more important examination will become in the educational system. And, the faster the rate of credential inflation, the more severe is the competition in examination. The more important examinations are in education, the more the educational content will be designed for examination evaluation. Hence, the primary goal of education becomes examination preparation for credentials, and education for learning turns out to be of only secondary importance.<sup>9</sup>

### C. The Distortion of Education

While certificate is regarded as an objective means of selection and when credential production is deemed a favoured function of schools, there has been criticism that credentialism may lead to considerable adverse effects. In this regard, Ronald Dore criticizes seriously that "qualification-earning is ritualistic, tedious,

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<sup>6</sup> Rohlen, *Japan's High School*, p. 84.

<sup>7</sup> Cummings and Naoi, *op. cit.*, p. 251 & 256.

<sup>8</sup> Imazu Kojiro, Hamaguchi Esyun and Sakuta Keiichi, "The Socialization of Children in Postwar Japan", *Japan Echo*, 9 (Special Issue), 20.

<sup>9</sup> Dore, *The Diploma Disease*, pp. 80-81.

suffered with anxiety and boredom, destructive of curiosity and imagination; in short, anti-educational.”<sup>10</sup> In other words, credentialism results into the distortion of education.

## **1. Schooling without Education: Not Learning but Earning**

Because of the close relationship between education credentials and recruitment, and because of their economic value, it is probable that people desire more education not for personal enrichment but for future socio-economic benefits. If people enter schools not for learning but for earning, the whole educational system will revolve around this goal. This is attested by Seah and Soeratno's study of higher education in Singapore. According to their study, since the objective of education in Singapore is narrowly defined as the enhancement of job prospects, the promotion of a spirit of inquiry and learning has been subordinated or ignored.<sup>11</sup> Similar attitudes can be also found among university students in Hong Kong.<sup>12</sup>

In his speech on the role of university education, Lee Kuan Yew conceded that credentialism has constituted the biggest problem of universities in newly-independent societies. Credentialism is a problem because the university degree becomes only a symbol (credential) of a minimum amount of knowledge a graduate has obtained within a fixed period of time. In this respect, the University of Singapore has done well, Lee said, as it has quickly produced a body of professionals and technocrats to fill a large vacuum of posts available in the post-colonial society. However, a more important role has not been fulfilled, namely, to develop people of positive and creative thinking.<sup>13</sup> C. C. Toh goes further and asserts that the

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<sup>10</sup> Ronald Dore, "The Future of Formal Education in Developing Countries", in John Simmons, ed., *The Education Dilemma: Issues for Developing Countries in the 1980s* (Oxford: Pergamon, 1980), p. 69.

<sup>11</sup> Seah Chee Meow and Soeratno Partoatmodjo, *Higher Education in the Changing Environment; Case Studies: Singapore and Indonesia* (Singapore: RIHED, 1979), p. 58.

<sup>12</sup> Wang Aiyee, "To Be Or Not To Be" (in Chinese), *Breakthrough*, (133), Nov 1985, 2.

<sup>13</sup> Lee Kuan Yew, "The Role of Universities in Economics and Social Development", 7 Feb 1966,

emphasis on credentialism in Singapore society has made its educational system a failure.<sup>14</sup>

In Japan, Y. Fukuzawa points out that if a young student reads a few books, he at once aspires to a government post. Hence, upon graduation, most university students have solely one thing in mind - a government post, as a post in government service is considered synonymous with fame and fortune which they have long cherished.<sup>15</sup> This perverted attitude towards higher education, coupled with the practice of the government and the top companies of recruiting their employees from the elite institutions without consideration of how well they have studied, means that students who have entered these institutions simply relax after long years of competition. Universities have turned out to be places of leisure.<sup>16</sup> The impoverishment of Japanese university has been caused by this attitude.<sup>17</sup>

## 2. The Prestige Complex

When education is for gaining credentials, school becomes the avenue to future earning. The better a school leads to credentials of high value, the more it will be in demand, and thus the more prestigious it will become. Hence as students compete for better credentials, schools also compete for prestige. By producing better credentials or by training students who can obtain better credentials in public examinations, they simultaneously earn prestige.

The prestige syndrome obtains in the three societies, since we can find a number of schools which are distinct from the rest in demand and in prestige. In particular

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in Koh, *op. cit.*, pp. 167-170.

<sup>14</sup> Toh, *op. cit.*

<sup>15</sup> Fukuzawa Yukichi, *An Encouragement of Learning*, trans. David A. Dilworth and Umeyo Hirano (Tokyo: Sophia University, 1969), pp. 24-25.

<sup>16</sup> Ikegi Kiyoshi, "Continuity and Change in Japanese Youth", *Japan Echo*, 9 (Special Issue), 1982, 28.

<sup>17</sup> Kitamura and Cummings, "The 'Big Bang' Theory", p. 314.

there is an obvious hierarchy of schools in Japan. Not only are the elite universities clearly distinct from the other universities, but secondary schools are also ranked in terms of the number of students they can place in elite universities. Moreover, graduates are judged in terms of the university and faculty they attend.<sup>18</sup> The existence of this hierarchy and the clear distinction between the prestigious and the other institutions have made many schools strive to improve the examination results of their students so as to raise their prestige.

Although, this sense of hierarchy is not as strong in Hong Kong and Singapore as in Japan, similar efforts to raise prestige have been made by the schools. As pointed out in a Green Paper in Hong Kong, the success of a kindergarten is often evaluated in terms of whether it can place its pupils in prestigious primary schools. As a result, many kindergartens are competitive and highly selective.<sup>19</sup> The distortion of education starts right from the earliest stage, and extends to the primary and secondary levels. Schools endeavour to place their pupils in popular secondary schools or the universities in order to raise their prestige.<sup>20</sup>

### **3. Examination-Orientated Schooling**

The prevalence of this “success” attitude has had marked effects on the curriculum. Rather than simply develop basic skills, kindergartens are tempted to over-emphasize training in academic skills. In Hong Kong, as the 1980 Green Paper on Primary Education and Pre-primary Services points out, some of this training in the kindergartens may have been educationally harmful.<sup>21</sup> At the primary level, the abolition of the SSEE as a result of compulsory education being extended to the junior secondary level, has not reduced much of this “success” pressure in educa-

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<sup>18</sup> OECD, *Reviews of National Policies for Education* (Paris: OECD, 1971), pp. 88-89.

<sup>19</sup> *Primary Education and Pre-Primary Services* (1980 Green Paper) (Hong Kong: Government Printer, 1980), p. 3.

<sup>20</sup> *Ibid.*, p. 4.

<sup>21</sup> *Ibid.*, p. 5.

tion. There emerges a new selection process for placing pupils in secondary schools - the Secondary School Places Allocation System. According to the system, in addition to the internal assessment tests taken at the upper primary level, the public Academic Aptitude Test is employed as a basis for selection. In the past, schools trained pupils to prepare for the SSEE; now schools train their pupils to meet the new requirements of the Academic Aptitude Test. This once again results in the distortion of both the content and style of teaching,<sup>22</sup> as in many schools, pupils from Primary 4 to 6 are mechanically fed with mock examination papers so as to succeed in the test. "Not only is moral education neglected", according to a public opinion survey, "but the whole approach is detrimental to education principles, methods and philosophy."<sup>23</sup>

As a result of the orientation towards examination preparation for better credentials in education, the curriculum in Hong Kong is characterized by emphasis on factual knowledge which is easier and more objective to assess. However, Jimmy Chan criticizes this emphasis as detrimental to the whole educational process in the sense that it "encourages memorizing and rote learning and thus does not induce creative and critical thinking, enquiry, initiative, imagination, or aesthetic appreciation."<sup>24</sup> The *Education Commission Report No. 1* also points out that as a result of the need to prepare for the JSEA, the modification of common syllabuses and the adoption of practical and technical subjects are seriously hindered. Moreover, school-based curriculum development and more child-centred approaches in teaching and testing are inhibited.<sup>25</sup> Consequently, modern schooling "not only fails to develop intellectual abilities to full capacity, but also tends to limit the future career prospects of our children."<sup>26</sup> The *Llewellyn Report* takes the view that even if this

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<sup>22</sup> *Ibid.*

<sup>23</sup> *A Public Opinion Study on the Report of the Board of Education on the Proposed Expansion of Secondary School Education in Hong Kong over the Next Decade* (Hong Kong: Home Affairs Department, 1974), Para. 3.19.

<sup>24</sup> Wing Cheung Jimmy Chan, *A Study of the Relation of Parent-Child Psychological Attributes of Adolescents in Hong Kong* (London: Ph.D. Thesis, University of London Institute of Education, 1972), p. 270.

<sup>25</sup> *Education Commission Report No. 1*, pp. 11-12.

<sup>26</sup> Chan, *op. cit.*

system of education worked well enough, from the point of view of higher education and the labour market, it is not acceptable either on educational or social policy grounds.<sup>27</sup>

It is not surprising to find a similar situation in the other two societies. For example, the criticism is often made that in Japan, the curricula are often shaped to meet the examination requirements rather than the needs of students in terms of their current levels of maturation and their future educational and career needs.<sup>28</sup> When education is reduced to mere examination preparation, and when rote learning is one of the keys to success, it is difficult to expect students, especially those who cannot cope with the examinations, to enjoy their school lives. Hence it is found that one in seven of upper secondary pupils in Japan want to drop out and one of their reasons is that "school life is empty and meaningless".<sup>29</sup>

#### 4. The *Ronin* Phenomenon

As the higher education sector in Japan has expanded so enormously that it can accommodate over one-third of the appropriate age group, university degrees or diplomas have become increasingly significant in terms of a better job, particularly a professional or a managerial one. Hence many students who fail to get entrance to a university continue to resit entrance examinations or even attend cram schools or *yobiko* to improve their chances at a second attempt. These students are called *ronin*, which used to mean "lordless wandering samurai".<sup>30</sup> These *ronin* account for a significant proportion of the first-year university students and of the candidates who sit entrance examinations. For instance, in 1957, *ronin* comprised 48 per cent of the successful entrants to all the state universities.<sup>31</sup> And in 1975, they comprised

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<sup>27</sup> *Llewellyn Report*, p. 32.

<sup>28</sup> OECD, *op. cit.*, p. 88; and Kitamura, "Mass Higher Education", p. 72.

<sup>29</sup> Barbara Casassus, "Blinded by Science".

<sup>30</sup> Rohlen, *Japan's High School*, p. 84.

<sup>31</sup> Ronald P. Dore, "Mobility, Equality, and Individuation in Modern Japan", in Ronald P. Dore,

33 per cent of all the successful entrants to universities. In 1980, at least 220,000 students, most of them *ronin*, were enrolled in *yobiko*.<sup>32</sup> In 1983, 24 per cent of all male university applicants were one-year *ronin* and 8 per cent had been *ronin* for two or more years. About two-thirds of the male applicants who failed to get into a university or college resat entrance examinations as *ronin* in 1984.<sup>33</sup> At present, about one in four of the first-year students are *ronin* who have previously failed to enter the university or college of their choice.<sup>34</sup>

As the certificates conferred by the elite universities have real significance in securing a promising future, there is little wonder that we can find a large proportion of *ronin* among the candidates of the entrance examinations of the elite universities or colleges. In fact, rather than accept entrance to a second-rate institution, a great many students are prepared to spend one, two, or even three years preparing for renewed attempts at the entrance examinations of the elite institutions. For example, at Tokyo University, in 1957, 46 per cent of the first-year students were *ronin* for one year, 18 per cent for two years, and 8 per cent for three or more years.<sup>35</sup> In 1984, *ronin* comprised 51 per cent of the first-year students, and among medical students, they comprised 48 per cent.<sup>36</sup>

In Hong Kong, as it is difficult to get a sixth-form place, and even more difficult to gain access to prestigious schools for sixth-form education, those who resit the HKCEE comprise not only students who have failed to pass the examination, but also students who have failed to score well. As a result, about one of every three HKCEE candidates is *ronin*. In the Chinese University matriculation examination,

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ed., *Aspects of Social Change in Modern Japan* (Princeton, New Jersey: Princeton University Press, 1967), p. 139.

<sup>32</sup> Rohlen, *op. cit.*

<sup>33</sup> Ikuo Amano, "Educational Crisis in Japan", in William K. Cummings et al., eds., *Educational Policies in Crisis: Japanese and American Perspectives* (New York: Praeger with the East-West Centre, 1986), p. 39.

<sup>34</sup> John Greenless, "Student Samurai Boom-time Battle Now", *The Times Higher Education Supplement*, 5 Feb 1988, 11.

<sup>35</sup> Dore, *op. cit.*

<sup>36</sup> Amano, *op. cit.*



the majority of the candidates have actually studied two years of sixth-form. But officially only one year of sixth-form studies is required for a student to sit this examination. Among those who were admitted in 1977, 29 per cent had studied in Upper Sixth and sat the Advanced Level examination. The other 71 per cent who were admitted only represented 7 per cent of the total number of candidates for that examination. In this case, the *ronin* phenomenon in Hong Kong resembles that in Japan. The only difference is that the squeeze takes place earlier at the HKCEE in Hong Kong but at the university entrance examinations in Japan. However, the phenomenon is essentially the same. In both societies, people aim at a higher education place, or more correctly, a higher education qualification. Both the number and the proportion of *ronin* in the HKCEE have increased remarkably over the years. According to K. K. Ho, *ronin* comprised 40 per cent of all HKCEE candidates in 1979 and rose to 49 per cent in 1983.<sup>37</sup>

The *ronin* phenomenon leads to wastage in education on the one hand and delay in social and economic productivity on the other. Not only does it intensify the competition for success in examinations and university admission, but it is unfair to those who are sitting the examination in their first attempt. Credential inflation thus takes the form of "examination inflation", as the greater the proportion of *ronin* in an examination, the more difficult it is to succeed at the first attempt. This situation becomes a vicious circle. The numbers of *ronin* are further increased, and chances to succeed in the first attempt are further reduced. In this case, one needs "cultural capital" to succeed in examinations. That is, one needs to be able to afford to wait without having to seek employment, or one has to possess all the advantages which can help success in examination, that is, the ability to obtain a place in an elite school and to pay for private tuition or attend *juku*.

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<sup>37</sup> Ho Kwok Keung, "Is the Hong Kong Certificate of Education Examination Fair?" (in Chinese) *Pai Sing Semi-Monthly*, (84), 16 Nov 1984, 43; also published in Ho Kwok Keung, *Contemporary Educational Problems in Hong Kong* (in Chinese) (Hong Kong: Chung Tai Press, 1987), p. 88.

## 5. The Pressures of Examination

As denoted in *The Hong Kong Education System*, most children in the educational system face selection and allocation procedures at all the major stages, all via examinations or aptitude assessment tests:

- a. at age 3 or 4: selection by interview and formal and informal tests for entry to kindergarten;
- b. prior to age 6: selection by interview and formal or informal tests for entry to primary school;
- c. at ages 11-12: allocation to public-sector junior secondary education by means of the Secondary School Places Allocation Scheme;
- d. prior to 15: selection for public-sector senior secondary education by means of the Junior Secondary Education Assessment;
- e. at age 17: selection for sixth-form education by means of the Hong Kong Certificate of Education;
- f. at age 18: selection for entry to the Chinese University of Hong Kong by means of the Hong Kong Higher Level examination;
- g. at age 19: selection for entry to the University of Hong Kong by means of the Hong Kong Advanced Level examination.<sup>38</sup>

In addition, the vast majority of schools hold full-scale examinations at least twice a year and formal or informal tests at frequent intervals (in some cases monthly or weekly).<sup>39</sup> Moreover many Form 6 students also sit for other external examinations, such as the GCE "O" and "A" level examinations. It is competition for educational credentials that drives a vast number of students to take as many examinations as they can. "It is the great number who aspire to tertiary education, and the relatively small number who succeed in so doing that is the crux of the problem of Sixth Form education in Hong Kong," as stated in the Report on Sixth Form

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<sup>38</sup> *The Hong Kong Education System*, p. 23.

<sup>39</sup> *Ibid.*

Education.<sup>40</sup>

When education is orientated towards credential production, and when examination is primarily regarded as a means of assessment to determine the credentials to be issued, preparation for examination comes to dominate the whole educational scene. The problem is aggravated in a society where the spirit of competition is strong and success is highly valued, and where failure is looked down upon. That the spirit of competition is strong in Japan, Hong Kong and Singapore is well-known. For example, Jimmy Chan asserts that "Hong Kong is a competitive capitalist society run on *laissez-faire* lines, and people are all the time trying to excel over others."<sup>41</sup> Richard Lynn suggests that "competitiveness" serves as an intrinsic motivation for Japanese students to learn.<sup>42</sup> A common feature of these cultures is "face-saving". In a face-saving society, everyone attempts to be a success and cannot stand being regarded as a failure, for this will cause him to "lose face". To ensure that their children are successful in examinations, many parents exert unnecessary pressures by requiring their children to gain academic distinctions.<sup>43</sup> This stress on examination preparation produces detrimental psychological effects, hindering personality development and affecting the attitude to home, social interest, academic motivation, and popularity.<sup>44</sup>

Educationists and sociologists in Singapore have presented a picture of their students as over-worked, tension-ridden children with no thought other than that of classes, textbooks, tests and examinations. After school, they have to attend compulsory extra-curricular activities in school for another couple of hours two to three days a week. And many have a third language to master twice a week. When they

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<sup>40</sup> *Report of the Board of Education Committee on Sixth Form Education* (Hong Kong: Government Printer, 1979), p. 3.

<sup>41</sup> Jimmy Chan, *op. cit.*, p. 269.

<sup>42</sup> Richard Lynn, *Educational Achievement in Japan: Lessons for the West* (London: Macmillan Press, p. 82.

<sup>43</sup> *Ibid.* See also "On the Psychological Pressures of the Hong Kong Student" (in Chinese), *Living Education*, (8), Jan 1977, 10.

<sup>44</sup> *Ibid.*, p. 270.

reach home, they go straight into homework. Senior secondary and pre-university students do not return home until very late in the evening. Moreover, most children also have private tuition not necessarily because they fall behind, but because of the parents' anxiety to see their children excel in examination performance. An editorial of the *Straits Times* commented that "a child's life today is all work and no play."<sup>45</sup>

In Japan, there is widespread belief that a student's performance in one crucial examination, i.e. the university entrance examination, will determine the rest of his life.<sup>46</sup> Because of this, children have to study hard for their future. Some pressures come from parents. As Japanese parents are well aware of the significance of obtaining the educational credentials from a high status upper secondary school and university, they transmit their concern for educational achievement to their children during the course of their upbringing.<sup>47</sup> Steven Lohr remarks that in Japan many Japanese mothers are called "educated mamas", who not only encourage but, when their children are ill, will go with notebook in hand to attend the classes themselves to make sure that their children will not fall behind.<sup>48</sup> Drilling for examinations has become a common practice in schools. In one school visited by Dore in 1970, pupils took no fewer than eleven mock tests during their second year of upper secondary schooling.<sup>49</sup>

Consequently, there has been concern that the health of school children in Japan is deteriorating. There is a rising incidence of myopia and there are reports of insufficient sleep. For example, a report issued by the Japan School Health Association in 1982 found that 60 per cent of school children suffered from insufficient

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<sup>45</sup> See K. S. C. Pillai, "Children of Singapore Being Pushed too Hard", *Hong Kong Standard*, 11 Jun 1981.

<sup>46</sup> OECD, *op. cit.*, p. 89.

<sup>47</sup> Lynn, *op. cit.*, p. 87.

<sup>48</sup> Steven Lohr, "Violence in the Schools", *Hong Kong Standard*, 6 Apr 1983.

<sup>49</sup> Ronald P. Dore, "The Future of Japan's Meritocracy", in Gianne Fodella, ed., *Social Structures and Economic Dynamics in Japan up to 1980* (Milan: Institute of Economic and Social Studies for East Asia, Luigi Bocconi University, 1975), p. 180.

sleep caused by the heavy homework load.<sup>50</sup> It is not surprising when we are reminded that a very large number of pupils attend *juku* after their normal school day. Many attend two or three times a week after school for supplementary instruction.<sup>51</sup> A cross-cultural study conducted by David Young shows that the death rate caused by stomach ulcer in Japan was the highest in the world between 1955 and 1964, for both males and females. His study suggests that people of lower social origins suffer more because the lower the social class the higher the rate of death from stomach ulcer.<sup>52</sup> He found that Japanese people experience three major crises in life. One is the intense competition of taking entrance examinations to the university.<sup>53</sup>

As competition for university entry is so fierce, not only do those who fail the entrance examination have psychological problems, but also those who succeed require considerable psychological adjustment. A sort of post-entry depression occurs among first-year students shortly after the school year begins in April. Hence, it is named the May Crisis. A few months previously, these students had been working extremely hard for years. Suddenly, they enter a new sphere where they are not required to work as hard or where they can even find leisure. Suddenly they are lost: no goal, no more struggle, and no more hard work. Therefore they lose motivation and this leads to depression.<sup>54</sup>

In view of the adverse effects of examination, it is no wonder that the 1973 Green Paper on Secondary Education in Hong Kong asserts that every effort should be made to treat the examination disease:

Every effort should be made to minimize the deleterious effects that public examinations have on pupils and their study programmes in secondary schools. The content of the curriculum for Form 6 should be designed

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<sup>50</sup> See Barbara Casassus, "Blinded by Science".

<sup>51</sup> Sato Seizaburo, "Growing Up in Japan", *Japan Echo*, 9 (Special Issue), 7.

<sup>52</sup> David E. Young, "Stress and Disease in Japan", *Asian Profile*, 2(6), Dec 1974, 557.

<sup>53</sup> The other two are (1) the first entry into school and (2) to interview for a new career upon graduation. See *ibid.*

<sup>54</sup> Orihara Hiroshi, "'Test Hell' and Alienation: A Study of Tokyo University Freshmen", *Journal of Social and Political Ideas in Japan*, 5(2-3), Dec 1967, 237.

in such a way that it would not only prepare students for university entrance.... (E)very effort should be made to encourage schools not to allow such syllabuses (as issued by the Hong Kong Certificate of Education Board for the examinations) to dictate their teaching/learning processes in the earlier years of secondary school.<sup>55</sup>

## 6. The Emergence of A Class of Failure

Credentialism motivates a student to *learn* for the sake of educational qualifications. Nevertheless, at the same time it discourages a student from working any harder when he perceives no hope or only a remote chance of gaining a useful certificate. Kitamura rightly points out the paradoxical situation that the number of “dropouts”, “involuntary attendants”, and “low achievers” tends to increase with the increase of educational opportunity.<sup>56</sup> But the problem certainly does not arise from the increase of educational opportunity. It would be more correct to say that increase dropouts, involuntary attendants and low achievers is because they have little hope of social mobility *vis-a-vis* increased educational opportunity. This is especially true if we consider K. M. Cheng’s comment on Hong Kong’s educational system. According to Cheng, the examination and selection system in Hong Kong has meant that its education has remained at the “bronze age”. There is neither compensation nor comfort for the examination failures. Therefore, once a student has failed the JSEA, for him, junior secondary schooling has become meaningless and useless. When a student has failed the HKCEE, senior secondary schooling for him has become a waste of time and effort.<sup>57</sup> As a result, anxieties about failure in examinations proliferate. According to a study, the below-average students experience particularly intense anxieties in face of public examinations.<sup>58</sup>

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<sup>55</sup> *Report of the Board of Education on the Proposed Expansion of Secondary School Education* (1973 Green Paper), p. 5.

<sup>56</sup> Kitamura, “Mass Higher Education”, p. 72.

<sup>57</sup> Cheng, “A Review of Eleven Year’s Education”, 15.

<sup>58</sup> Betty L. L. Lai Yau et al., “The Effects of Study Techniques on the Above- and Below-Average Pupils” (in Chinese), in *Selected Essays of the First Academic Conference* (Hong Kong: 1985), p. 69.

The Provisional Council on Educational Reform considered that credentialism is an underlying cause of the increase in juvenile delinquency.<sup>59</sup> Kumahira remarks that as the entrance examination season approaches, students' behavioural problems become more frequent.<sup>60</sup> S. Ono, headmaster of the Hibiya Public High School says that when students realise the system can no longer accommodate them and that they are bound for a second-rate future in a second-rate company, they protest, and violence occurs.<sup>61</sup> Although juvenile crime figures in Japan are low compared to other developed industrial nations, they are rising. The number of teachers injured in violent incidents in schools doubled between 1978 and 1983 to well over 300 a year. The number of violent incidents in junior secondary schools had a 25 per cent annual increase in the late seventies.<sup>62</sup>

S. Sato suggests that modern Japanese youth is characterized by low self-esteem. Although the way to upward mobility seems to be open to all, many are realistic enough to perceive that the chance of upward mobility is in fact quite small. Hence, according to Sato's study, the most popular choices of Japanese children for a future occupation are office worker and school teacher, not doctor, lawyer, or judge. The 1979 NHK survey obtained similar results. Fifty-seven per cent of the sixth graders and 54 per cent of the eighth graders were found to have low self-esteem.<sup>63</sup> Studies in Hong Kong suggest that the pressures and tensions of examination create negative and pessimistic attitudes to life among many students who are becoming cynical and hedonistic. This is particularly widespread among senior secondary students, as they have to face the HKCEE which is a public examination which will decide their future.<sup>64</sup>

*In extremis*, some attempt suicide. The youth suicide rate increased sharply

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<sup>59</sup> *First Report on Educational Reform*, p. 34.

<sup>60</sup> Kumahira Hajime, "Laying the Groundwork for School Reform", *Japan Echo*, 11(2), 1984, 47.

<sup>61</sup> Cited by Bruce Roscoe, "Where parents Feel As Blessed As the Children", *Far Eastern Economic Review*, 14 Jun 1984, 81.

<sup>62</sup> Aurial Stevens, "Juvenile Fears", *South China Morning Post*, 12 Jan 1983.

<sup>63</sup> See Sato, *op. cit.*, pp. 8-9.

<sup>64</sup> Lam, *op. cit.*

during the mid-fifties but has since declined steadily. However, even with a declining rate, the incidents of youth suicide stood at 1,777 in 1981.<sup>65</sup> Moreover, there is a tendency for pupils to commit suicide at an earlier age, including eight and nine year old primary school children.<sup>66</sup> Hong Kong also has records of youth suicide. For example, a candidate committed suicide on 11th August 1977, when the HKCEE results were released. Another one committed suicide three days later. Within the five days between 11th and 15th August, over 1,000 candidates rang a suicide-prevention agency for help.<sup>67</sup> In 1987, on the day that the admission list of a technical college was announced, a candidate sent his mother to see the list, but he committed suicide at home. Unfortunately, he died before he could know that he was among those admitted.<sup>68</sup> A recent case of suicide took place in February 1988, of a young person who could not stand the pressures of the matriculation examinations.<sup>69</sup>

Committing suicide, which is more noticeable in Japan, is a drastic action which takes courage to achieve, but opting out is easier. In Hong Kong and Singapore, a great many of those who perceive no hope of a promising future simply drop out. Attrition rates in the two societies are phenomenal. According to Y. W. Fung, in Hong Kong, between 1968 and 1969, over 10,000 secondary students dropped out. At the secondary level, the dropout rates were 27.62 per cent between 1965-1969, 24.58 per cent between 1966-1970, 30.52 per cent between 1967 and 1970, and 33.74 per cent between 1968 and 1972. It should be noted that as the graduates of the Chinese medium schools are virtually ineligible to apply entry to the University of Hong Kong and are disadvantaged in competition for jobs, the dropout rate in the Chinese medium secondary schools is much higher than that in the English medium schools. In the same periods, these dropout rates were 49.25 per cent, 49.07 per

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<sup>65</sup> Lohr, *op. cit.*

<sup>66</sup> David Lister, "No Real Equality in the Land of the Rising Son", *The Times Educational Supplement*, 4 Jun 1982, 16.

<sup>67</sup> "Such an Examination" (in Chinese), *Living Education*, (12), Sep 1977, 58.

<sup>68</sup> *Sing Pao*, 17 Sep 1987, 9.

<sup>69</sup> See *Tung Fong Yat Pao*, 4 Feb 1988, 3.



cent, 53.03 per cent, and 54.77.<sup>70</sup> Another study conducted by the Caritas Social Centre suggests that each year about 10,000 pupils drop out. Further, according to their study, from the primary to the junior secondary level, the dropout rates were 28.8 per cent between 1971 and 1979, 19.4 per cent between 1972 and 1978, 22.9 per cent between 1973 and 1981, 20.3 per cent between 1974 and 1982, and 18.1 per cent between 1975 and 1983. At the junior secondary level alone, the dropout rates were 14.4 per cent between 1979 and 1981, 16 per cent between 1980 and 1982, and 15.6 per cent between 1981 and 1983. What should be noted is that the above figures do not include repetition and over-age pupils. It is noteworthy that although free primary education was introduced in 1971, compulsory primary education was introduced in 1979, and compulsory junior education was introduced in 1980, there is still a mass of school dropouts. These free and compulsory measures in education have not been effective in keeping these children in the educational system. The most important reason for these pupils dropping out is examination results and interest in study, both of which are closely linked together also.<sup>71</sup>

Singapore has also experienced a certain amount of attrition. According to the *Goh Report*, between 1971 and 1974, the attrition rates (dropouts plus failure rates) were 29 per cent at the primary stage and 36 per cent at the junior secondary stage. Dropout rates alone were 6 per cent at the primary stage and 13 per cent at the secondary stage.<sup>72</sup>

#### **D. The Hidden Curriculum**

It is said that in addition to the explicitly taught curriculum (such as mathematics and other academic subjects), schools also teach another kind of curriculum

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<sup>70</sup> Fung, *Education and Society*, p. 60.

<sup>71</sup> Caritas Social Centre Aberdeen Outreaching Social Work Team, *Report on the Dropout Problems of the Hong Kong Adolescents* (in Chinese) (Hong Kong: Caritas Social Centre, 1985), pp. 4-7 & 10.

<sup>72</sup> *Goh Report*, pp. 3.1-3.3.

which has been called the hidden curriculum. The hidden curriculum is a set of values, attitudes or principles conveyed implicitly to pupils by teacher, school regulations and rules and the educational system.

What then is the hidden curriculum in a credential society? First, education is for earning, not learning. In a credential society, the pyramid of income is closely interlocked with the pyramid of credentialism, says Bernard Luk.<sup>73</sup> If so, materialism or moneyism is embedded in the hidden curriculum of the schools in the three societies today. This motif of earning explains why everyone wants to be educated, and why there is a demand for the expansion of educational provision. It also coincides with the notion of education for human investment, as investment and rates of return are all economic notions, concerned with economic prosperity. This further explains why there are difficulties with moral education or cultural learning, when the aims of moral education are by nature in contrast to the hidden philosophy of education in these modern societies.

The hidden curriculum in a credential society, Luk asserts, is also characterized by "the pyramid of credentialism".<sup>74</sup> which is achieved by selection, examination and competition. The spirit of competition prevails in the three societies. First, it requires a sense of competitiveness in order to make these societies effective in the international arena which is highly competitive in nature. This function of education is clearly stated in the 1974 White Paper on Secondary Education that Hong Kong's education "should go far to provide for the children of Hong Kong the standards of education which they need if they are to be properly equipped to fend for themselves and serve their fellows in the *competitive* world of the next decade."<sup>75</sup>

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<sup>73</sup> Bernard H. K. Luk "Moral Education in Hong Kong" (in Chinese), *Ming Pao Monthly*, 16(8), Aug 1981, 39.

<sup>74</sup> *Ibid.*

<sup>75</sup> *Secondary Education in Hong Kong during the Next Decade*, p. 2, (emphasis mine).

Second, to promote the competence of their societies and also to maintain an atmosphere of meritocracy, competitiveness becomes the prevailing ethos of the school. Hence teachers try their best to help their students to win in the rat race, and by so doing they themselves also participate in the race. Students have to study hard to win. However, in every race, there are only a few winners but many losers. When one wants to win, one has to beat the others. There is no mercy in a race, otherwise, the winners will become losers. When this sense of competition exists in the educational system, it is unrealistic to teach students - the competitors - to love and care for their classmates who are their competitors. When competition prevails in the educational system, utilitarianism and alienation follow.<sup>76</sup> As Orihara remarks, impersonalization, alienation and isolated self-struggle are all syndromes among students who have to compete for success in university entrance examinations in Japan.<sup>77</sup> In Singapore, according to the study of Seah and Soeratno, 40 per cent of the respondents in their survey affirmed that "university education was a 'rat race' characterised by impersonality, selfishness, indifference and what may be described as the a 'paper-chase'."<sup>78</sup>

### **E. The Perpetuation of Social Stratification**

As Collins has argued, credentialism is the gatekeeper for cultural selection. Cultural selection for him is a synonym for class perpetuation. This is manifest in the inflation of credentials which takes place when more people gain access to them.

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<sup>76</sup> Maybe there can be a certain extent of cooperation among students in the way that they work together for better examination results, as particularly mentioned by Lynn for the case of Japan. (See Lynn, *op. cit.*, p. 78.) However, in this case, competition only extends from the personal level to the group level. The basic spirit is still competition and the goal is still to browbeat the other competitors.

<sup>77</sup> Orihara, *op. cit.*, 233-237.

<sup>78</sup> Seah and Soeratno, *op. cit.*, p. 58. It should be noted that in Japan when the government service and big companies in Japan recruit graduates from elite universities without considering how well they have studied, the tension of competition is released once a student gets into university. However this is not the case in Singapore and Hong Kong. And compared to Hong Kong, competition for good examination results is more intense in Singapore, for only those who score well can be admitted for an additional year of study leading to the honours degree.

The more credentials inflate, the higher is the price. The higher the price, the more it advantages the upper class and the rich. Hence, the main feature of his conception of the credential society is class perpetuation and the support of elitism under the banner of credentialism. This phenomenon was earlier pointed out by Weber that "the acquisition of the educational certificate requires considerable expense and a period of waiting for full remuneration, this striving means a setback for talent (charisma) in favour of property."<sup>79</sup> Illich echoes the view that schools give the impression of being equally open to all comers at first glance. However, in fact, they are open only to those who can afford to pay the cost of consistently renewing their credentials.<sup>80</sup>

As a result, success in the educational system is largely dictated by how much individuals have absorbed the dominant culture, or how much cultural capital they have got. In this way, the modern educational system has facilitated the reproduction of the social structure.<sup>81</sup> In contrast to the contention that meritocracy is a fair and objective means of selection, Bourdieu suggests that objectivity in social selection under the principle of meritocracy is merely ostensible and it actually benefits the advantaged class:

The objective mechanisms which enable the ruling classes to keep the monopoly of the most prestigious educational establishments, while continually appearing at least to put the chance of possessing that monopoly into the hands of every generation, are concealed beneath the cloak of a perfectly democratic method of selection which takes into account only merit and talent, and these mechanisms are of a kind which converts to the virtues of the system the members of the dominated classes whom they eliminate in the same way as they convert those whom they elect, and which ensures that those who are "miraculously elected" may experience as "miraculous" an exceptional destiny which is the best testimony of academic democracy.<sup>82</sup>

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<sup>79</sup> Max Weber, *From Max Weber: Essays in Sociology*, trans. and ed. H. H. Gerth and C. Wright Mills (London: Routledge & Kegan Paul, 1948), pp. 241-242.

<sup>80</sup> Illich, *op. cit.*, p. 64.

<sup>81</sup> Pierre Bourdieu, "Cultural Reproduction and Social Reproduction", in Richard Brown, ed., *Knowledge, Education, and Cultural Change* (London: Tavistock, 1973), p. 71.

<sup>82</sup> *Ibid.*, pp. 85-86.

Credentialism is an essential element of meritocracy. If credentialism does little to reduce social inequality and stratification, it is unrealistic to expect meritocracy to do so, not only because does meritocracy benefit the advantaged class in the way put forth by Bourdieu, but that the essence of meritocracy is differentiation and selection. The spirit of meritocracy is to distinguish those who have merit from those who have not. Whenever there is selection, there is differentiation; whenever there is differentiation, there is classification and stratification. If there is stratification, there are elites and non-elites and there are the privileged and the underprivileged. The emergence of credentialism only provides another way to justify and perpetuate this situation. As H. C. Chan points out,

But perhaps potentially more serious is the emergence of a social elite with professional skills and higher education in a more strategic position to accumulate wealth and privileges resulting in the affluent society, widening the income gap among the social classes. Yet this dilemma is a direct consequence of the ruling party's development strategy which propounds that national development is dependent upon a "meritocracy" - a key elite group whose ideas and direction would be the main moving spirit that shapes the prosperity and the destiny of the nation. The theory goes that such men must be recognised and encouraged by material and status rewards. Concern over this development has prompted the political leaders to chide the new elite for a "super-class" mentality and intellectual arrogance.<sup>83</sup>

It is interesting to note that Prime Minister Lee's worry over the future shrinkage in pool of talent is expressed in terms of educational credentials. He writes,

In the 1970's, our annual births went down to 40,000. The number of talented and balanced Singaporeans will be between 12-14 persons per annum at one per 3,000.

The 1980 Census disclosed that women with university or tertiary education ... have, on average, 1.6 children. Women with primary school qualifications ... have on average 2.7 children. Women with no education qualification ... have, on average, 3.6 children. If we confine the figures to women below 40 years old, there is a less depressing reproductive gap

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<sup>83</sup> Chan Heng Chee, "Succession and Generational Change in Singapore", *Pacific Community*, 1973, 149.

between those with tertiary education, on average 1.3 children, and those with no educational qualification, on average 2.8 children.<sup>84</sup>

Because of this concern, he proposed a policy of giving the offspring of graduate mothers registration priority at primary and pre-primary levels. Once again, clearly, the policy proposed is justified in terms of educational credentials - the university degree.<sup>85</sup> What is really striking is that so deep is his faith in educational qualifications that he attempts to design a policy that may result in a hereditary perpetuation of the advantages of degree holders. This is further exemplified by the setting up of the Social Development Unit (SDU). The basic function of the SDU is that of a matchmaker. It is responsible for organizing social activities to enable university graduates to meet, so as to reshape Singapore's future society through graduates marrying people of similar intellectual level.<sup>86</sup> The attempt to extend credentialism to a biologically hereditary level is a bold step which at the same time openly expresses the conviction that those who are not able to obtain a university degree will produce children who will be biologically inferior. As Peters says, "its 'Queen Bee' treatment of the graduate woman raised too many eyebrows and hurt too many people's feelings."<sup>87</sup> This is contrary to the spirit of meritocracy, as one of the basic elements of merit is effort. The race for the highly valued educational credentials is discriminatory from the onset.

In Hong Kong, there is neither an SDU nor a proposal for a "queen bee" policy. However, as pointed out in the last chapter, the rich can afford to send their children overseas for further education. And these overseas graduates are in an advantaged position in acquiring high-ranked jobs. Hence, the selection process in Hong Kong is extended to include those who own overseas credentials. Once again, the rich are ultimately in a relatively more advantageous position to obtain a high-rank job. According to Mitchell and his associates, in Hong Kong, a university

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<sup>84</sup> Lee Kuan Yew, "The Search for Talent" (Singapore: n.d.).

<sup>85</sup> Tasker, *op. cit.*

<sup>86</sup> Ann Peters, "Love Me, Love My Diploma", *Asia Magazine*, 24(B-5), 30 Nov 1986, 9.

<sup>87</sup> *Ibid.*, p. 11.

educated person gains entry to "high level manpower" more easily and is more rapidly promoted. An overseas education in the West, especially in the U.S., is the best qualification for a successful career in Hong Kong industry. For example, in 1966, 62 per cent of the graduates from America held positions of senior management in industry, compared to 53 per cent of the graduates of Hong Kong University, 13 per cent of the graduates of other universities in Hong Kong, 12 per cent of the graduates of the Technical College, and 30 per cent for those who attended a university in China.<sup>88</sup>

In the case of Japan, N. B. Shimahara contends that the examination system has done virtually nothing to increase the chances of upward mobility. First, the system discriminates against the economically disadvantaged. Second, it is an arbitrary device for social placement rather than a pedagogical instrument, as, contrary to the general belief, it is not capable of identifying latent abilities, especially the abilities of the disadvantaged and those not good at passing examinations.<sup>89</sup> Johan Galtung advanced the notion that Japan's credentialism (or degreeocracy as he called it), has made the society ascriptive. Once allocated to a group, it is very difficult to change one's class.

It is like being born into a class, only that in a *degreeocracy social birth takes place later than biological birth*. More precisely it takes place at the time of the various entrance examinations, and like all births it has its pains.... Biological birth is dramatic and the social birth of fully conscious individuals even more so.... The allocation is by "social birth" rather than biological birth washing out much of the influence of family origin. But *education serves a sorting rather than learning function*, and becomes ascribed rather than achieved. It is *where* one studied rather than *what* one knows that matters. Education serves to establish a degreeocracy with classes that are very difficult to leave once one has been assigned to them.<sup>90</sup>

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<sup>88</sup> *Special Committee on Higher Education: Second Interim Report* (Hong Kong: Government Printer, 1968), pp. 75-76.

<sup>89</sup> Nobuo K. Shimahara, "Socialisation for College Entrance Examinations in Japan", *Comparative Education*, 14(3), Oct 1978, 263-264.

<sup>90</sup> Johan Galtung, "Social Structure, Education Structure and Life Long Education: The Case of Japan", in OECD, *op. cit.*, pp. 139 & 141.

Mobility will become more difficult to achieve when social birth (which is based on degreeocracy) and biological birth are linked together in the form of marital and kinship ties within the elite class which can still be found today. Regarding this, Dore says,

One should not ignore either the effect of heredity, especially in a society where the arranged marriage - or at least the calculating, sensible, unromantic attitudes typical of arranged marriages - are still very much alive.<sup>91</sup>

Hence credentialism in Japan differentiates the "haves" from the "have-nots".<sup>92</sup> It stabilizes social stratification by means of examination which regulates class or vertical mobility.<sup>93</sup> In addition, the practice of life-time employment further limits horizontal mobility (movement from one institution to another). As a result, "opportunities for upward manoeuvre are confined to the period of entering a university. Thus entry to the highest-rated universities opens direct access to the royal road," comments C. Nakane.<sup>94</sup> This means that cultural selection is secured to a certain extent by credentialism and further entrenched by life-time employment.

M. Sumiya agrees and notes that post-war Japan is not truly "competitive". There is an end-point of competition. Those who have obtained a place in an elite institution of higher education do not have to compete among themselves, for their

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<sup>91</sup> Ronald P. Dore, "The Future of Japan's Meritocracy", p. 185. Cf. Cummings and Naoi, *op. cit.*, p. 266-267.

<sup>92</sup> Shimbori, "The Academic Marketplace in Japan", p. 620.

<sup>93</sup> This is further exemplified by the fact that while educational opportunities in general have rapidly expanded over the post-war period, the size of many of these elite gateway institutions has remained relatively constant. For example, the Law Faculty of Tokyo University, "the most elite among the elite paths", has increased its number of places for students by only 20 per cent. Tokyo University as a whole has expanded by only 50 per cent, but much of this growth has been in areas that normally do not lead to elite careers. Hence Cummings remarks, "it is correct to say that the number of openings at the top has increased but slowly, whereas the number of aspirants has rapidly expanded." See Cummings, "Expansion, Examination Fever, and Equality", in Cummings, Amano and Kitamura, eds., p. 99. Orihara, *op. cit.*, p. 228.

<sup>94</sup> Nakane also points out that despite the recent claims that promotion is increasingly governed by merit rather than seniority, there has been no increase in the mobility of those who work in the higher-ranked institutions, where both management and employees seem to prefer the traditional life-time employment system. See Chie Nakane, *Japanese Society*, p. 111 & 117. Cf. Dore, "The Future of Japan's Meritocracy", p. 178.



high social status is already recognized. Hence, competition virtually ends when a student is admitted, for once admitted the student will normally receive a degree. In other words, his future status is granted well before graduation. In this case, schooling functions as the chief factor to differentiate the “non-competing” groups from the competing groups.<sup>95</sup> It is said that the conservative government is actually a silent supporter of the examination system, as this is the best way to facilitate cultural selection. This is attested by their continuing reliance on Tokyo University as the principal supplier of higher-rank civil servants.<sup>96</sup>

The OECD Review’s comment may be the best summary of this discussion on credentialism and social stratification in Japan. According to the Review, in a credential society like Japan, “the system is egalitarian and flexible as compared to a hereditary class system, but rigid and arbitrary as compared to systems in which individual performance over a much wider span of time helps sort people into appropriate careers and offers an opportunity for the motivated individual to catch up educationally and even change occupational status as he develops his capacities.”<sup>97</sup>

The above study suggests that neither credentialism nor meritocracy can reduce social inequality or stratification. The crux lies in the fact that differentiation is the essence of meritocracy and credentialism. If we want to achieve egalitarianism, it seems that the concept of “merit” should first be revised. Torsten Husen makes this viccinctly when he says, “There is a goal conflict between equality and excellence, and even more so, between populist egalitarianism on the one hand and selection for status all the way through school and working life on the other.”<sup>98</sup> And the dilemma has been given way to emphasis on excellence rather than equality, when it

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<sup>95</sup> Sumiyo Mikio, “The Function and Social Structure of Education: Schools and Japanese Society”, *Journal of Social and Political Ideas in Japan*, 5(2-3), 123.

<sup>96</sup> Cummings, “Expansion, Examination Fever, and Equality”, in Cummings, Amano and Kitamura, eds., *op. cit.*, p. 105.

<sup>97</sup> OECD, *op. cit.*, p. 89.

<sup>98</sup> Torsten Husen, “Educational Research in a Meritocratic Society”, *Singapore Journal of Education*, 6(2), 1984, 47.

is necessary to make a choice between the two. Hence, in respect of the educational scene in the past few decades, "the mood has swung from the almost euphoric conception as the Great Equalizer to that of education as the Great Sieve that sorts and certifies people for their slot in society."<sup>99</sup>

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<sup>99</sup> Torsten Husen, "Problems of Securing Equal Access to Higher Education: The Dilemma between Equality and Excellence", *Higher Education*, 5, 1976, 411.

## CONCLUSION

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The above analysis seems to provide a very depressing picture of the development of education in these modern East Asian societies. However, it should be made clear that it is not intended to overlook the contribution that education has made in these societies during the post-war period. All of them are economically strong. As compared to many other developed and developing countries, the unemployment rate is low, and the problem of the educated unemployed is minimal. Although there are worries over the rise of juvenile delinquency, the crime rate is not high in international perspective. Further, their educational standards at the school level are high, especially in Mathematics, according to international studies. In addition, a certain amount of upward mobility can be seen since the elaboration of the educational system.

Notwithstanding, we need to be aware of the existence of the problems, it is difficult to avoid or even solve those problems which may grow and even overwhelm the educational scene if they are neglected. Furthermore, if we are not aware of the roots of the problems, all efforts to tackle them may be in vain, for we treat only the symptoms without curing the disease. As Illich says, "We cannot begin a reform of education unless we first understand that neither individual learning nor social equality can be enhanced by the ritual of schooling."<sup>1</sup>

Japan, Singapore and Hong Kong all have experienced considerable social change during the post-war era. A major direction of change is towards modernization. In the process of modernization, technological advancement has been a focus of development, and it has been regarded as a major element in modern-

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<sup>1</sup> Illich, *op. cit.*, p. 43.

ization. While to some countries technological development may be significant in terms of defense, to these three societies, it is of paramount significance in terms of industrial development. Industrial development is deemed a necessity, for it makes the societies competitive in the international economic arena, and it is regarded as a major means of survival since all of them lack natural resources.

At the same time, all the three societies have seen education as an indispensable instrument to facilitate the modernization process, or more specifically, their technological development. As industrial development and economic development are so entwined together, education not only functions as a tool for technological development but is entrusted with the task of promoting economic growth. Hence, the concept of human investment has been employed. According to this human investment notion, educating the people is like investment in business. Investment in education increases labour's productivity by providing increased skills and knowledge. Hence the schools are required to develop the individual to his or her fullest potential. The policy implication is that increased amounts of schooling for individuals will increase their wages and social inequality will be reduced.<sup>2</sup> Nevertheless, the final goal of investment in educating people is economic growth.

As a result, scientific and technological education has been emphasized in these societies. The emphasis on scientific and technological development as well as economic development have triggered rapid social changes in all modern societies. Inventions abound and knowledge explodes. Changes in the different sectors of societies have taken place, and the education sector is no exception. All the three societies have experienced an explosion in aspirations for education, and more and more people demand for a school place. When most people are able to obtain a primary school place, the demand builds up for an increase in secondary provision, and then for more tertiary education. Concurrently with the expansion of the ed-

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<sup>2</sup> John Simmons, "An Overview of the Policy Issues in the 1980s" in John Simmons, ed., *The Education Dilemma: Policy Issues for Developing Countries in the 1980s* (Oxford: Pergamon, 1980), p. 24.

educational system, all three societies have experienced rapid changes in educational policies. The need for technological and economic development is not only a major drive for the expansion in the educational system but also a major direction of all policy changes. However, the rapid educational expansion and policy changes are at the same time a result of the growing acceptance of the principle of equality of opportunity. There is a clear indication that human investment constitutes the axis of educational development in the post-war period, and the principle of equality of opportunity has been increasingly seen as important, which leads to further expansion of the educational system.

The rapidity of change requires considerable human adjustments and adaptation, as is propounded in the "future shock" thesis. The rapidity of change in the education sector in the three societies has led to conflicts and confusion. Confusion, conflicts and adjustments are inevitable whenever there is very rapid change. They are costs to pay, but may be considered desirable if we realize that without explorations and without trial-and-error there can be no human progress at all. Hence even though change itself may cause problems, it is still necessary to change. The crux of the problems in face of rapid changes in these three societies rather resides in the nature of the human investment notion and their claim to achieve social equality.

There are difficulties in the notion of human investment. Apart from doubts as to whether human investment match productivity, the reliability of manpower forecasting is also put into question in the face of rapid changes. The rapidity of social and technological change, as manifest in invention and knowledge explosion, has made what are learned in schools soon become obsolete. Further problems arise because of the basic assumption of the human investment theory that education structures and processes are relatively independent of social and political forces. This basic assumption explains why the rapid expansion of educational provision is slow or ineffective in reducing social inequality. Obviously, under the perspective

of human investment, the prime aim of education is manpower production, not the promotion of equity.

Secondly, as different spheres of society interact, change in one sphere leads to change in the others. Therefore, in the process of modernization, when a society is urgently seeking technological and economic development, it is likely that certain modern values emerge to cater for the new environment. Common modern values are materialism, utilitarianism, pragmatism, individualism, and achievement-orientation. However, “modern” values in society may not all be clear-cut. A typical example is that the not-to-consume-to-consume paradox constitutes a part of modern capitalistic society. The emergence of new modern values (many of which are different from or even in conflict with the traditional values), coupled with the existence of value paradox, have posed dilemmas and problems in moral education.

What is more, central to this human investment approach is the spirit of social engineering, whereby human beings are only “materials” that the social engineers deal with and individual preferences are considered outside the realm of economic analysis.<sup>3</sup> Hence, individual “consumption, investment and work preferences are not the outcomes of social institutions such as schools or individual experiences, but are considered only as inputs”.<sup>4</sup> It is here where dehumanization resides. Humanity is lost when human beings are treated only as human capital and when the value of the people in society is only interpreted in terms of their economic value - their prospects of manpower production. Moreover, human dignity is affronted when individuality is subsumed under manpower planning.

When it is the economic value of the people that matters, the more productive one is, the more highly regarded one is in the society. A device is needed to sort out these productive people, and thereby credentialism emerges. Human capital theory

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<sup>3</sup> Simmons, *op. cit.* and Fairchild et al., *op. cit.*, p. 282.

<sup>4</sup> Simmons, *op. cit.*

and credentialism are two sides of a single coin.<sup>5</sup> Hence the difficulties found in the human investment approach appear in credential society as well. As there is doubt about the correlation between education and productivity, educational credentials cannot guarantee one's productivity either. What is more, as the privileged class in the society owns more cultural capital than other people of the society, they are certainly advantaged under the credential system. In this way, even though a credential society looks meritocratic, credentialism has not reduced social inequality.

Ivan Illich is anxious to demystify the function of schooling. According to Illich, there are mainly four myths concerning schooling. The first is the myth of institutionalized values. That is to say, learning has to take place in school, and self-learning is discredited. Hence, schooling and learning have become an unending consumption. The second is the myth of measurement of values. It leads to a belief that school initiates young people into a world where everything can be measured, (including the value of learning, imagination, and indeed, man himself). The third is the myth of packaging values. According to this, the curriculum is designed as a bundle of planned meanings, a package of values, a commodity whose "balanced appeal" makes it marketable to a sufficiently large number to justify the cost of production. Consumer-pupils are taught to make their desires conform to marketable values. The fourth is the myth of self-perpetuating progress. At almost any cost, school pushes the pupils up to the level of competitive curricular consumption, into progress at ever higher levels. If it teaches nothing else, school teaches the value of escalation.<sup>6</sup>

Being critical of the distortion of education in schooling, Illich makes a radical suggestion - deschooling - only by which, he believes, can people really learn for the sake of learning. Further, he proposes the establishment of a learning web as an alternative to schooling. The learning web will arrange skill exchanges and peer-matching for learning. Moreover, it will offer reference services to educators-

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<sup>5</sup> See Blaug, *The Methodology of Economics or How Economists Explain*, pp. 231-234.

<sup>6</sup> Illich, *op. cit.*, pp. 44-47.

at-large.

Illich's proposals have been criticized as too radical on the one hand and utopian on the other. As Beverley Shaw comments, "deschoolers, such as Illich, have a naive faith that a society is possible without social institutions: in that sense, they are supreme individualists."<sup>7</sup> Moreover, it is not difficult to imagine that the process of matching skill exchange will eventually turn out to be some form of schooling. When everyone wants to "exchange" skills with experts, or when demand for experts is larger than supply, these experts will then turn out to "exchange" with a large group of people for the sake of convenience. These groups will thus operate in the form of a class, as the "exchange" process will then be more characterized by teaching, when the expert knows more than the others who attend the exchange programme. Further, everyone wants to go to an institute which attracts more experts for skill exchange. These institutes will thus become school-like institutions again.

To combat the diploma disease, Dore suggests that it is better for students to start careers earlier at around the ages of 15-17. And all tertiary education is then transformed into in-career learning. Moreover, where there has to be selection in the educational system, academic achievement tests should be avoided and be replaced by tests that cannot be crammed for, such as aptitude tests.<sup>8</sup> Elaborating Dore's suggestions, Angela Little suggests four alternatives: earlier selection into jobs, abolition of educational qualifications in job selection, selection through restricted lotteries (applying lotteries in addition to academic selection), and selection through reformed examinations (again, using other forms of tests such as aptitude tests).<sup>9</sup>

However, as she has noted, none of these can cure the diploma disease alone.

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<sup>7</sup> Beverley Shaw, *Educational Practice and Sociology: An Introduction* (Oxford: Martin Robertson, 1981), p. 222.

<sup>8</sup> Dore, *The Diploma Disease*, pp. 142-143.

<sup>9</sup> Angela Little, "Combating the Diploma Disease", in John Oxenham, ed., *Education Versus Qualifications*, pp. 199.



Earlier selection into jobs will have no impact in reducing exam-cramming, in improving the balance between extrinsically and intrinsically motivated learning, and in increasing equity of resource. The abolition of educational qualifications and the adoption of aptitude tests in job selection are unlikely to reduce exam-cramming, and there will be no increase in equality of resource distribution. Selection through restricted lotteries in addition to academic selection is unlikely to reduce exam-cramming either. Moreover, it is unlikely to improve the balance of skills or to improve the balance between extrinsically and intrinsically motivated learning. And selection through reformed examinations will have no impact on reducing “unnecessary” qualification escalation, reducing “unnecessary” expansion of the formal school system and costs, reducing cramming, and increasing equality of resource distribution.<sup>10</sup>

There are numerous proposals and alternatives that cannot be listed or discussed here. However, all suggestions of policy changes can only marginally help to combat the adverse effects resulting from the over-emphasis on human investment and credentialism, or to reduce social inequality, unless it is realized that schooling and society are closely linked together. It is necessary to remember that the social structure and economic activities always have immense effects on the educational system. As Fagerlind and Saha say, “the nature of this (economic) growth, for example the economic structure and the material and human resources on which it is based, determines the type of education which more adequately responds to the needs of any particular type of societal development.”<sup>11</sup> Or as Martin Carnoy remarks, “Putting more resources into education and managing it better may make the educational system a more pleasant place and may even increase “learning” ... but will not solve social and economic inequality or unemployment - these are attributes of the development pattern itself.”<sup>12</sup>

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<sup>10</sup> *Ibid.*, 226-228.

<sup>11</sup> Fagerlind and Saha, *op. cit.*, p. 70.

<sup>12</sup> Martin Carnoy, “Education for Alternative Development”, *Comparative Education Review*, 26(2), Jun 1982, 162.

John Simmons points out that there has been increasing evidence that education cannot be treated as an isolated factor in social change. According to Simmons, educational systems are best understood not in terms of providing human capital to individuals or promoting economic equality, but rather in terms of their position in maintaining the *status quo* by reproducing the social order. Hence, many of the supposed inefficiencies and perceived inadequacies of the educational system (e.g. dropout rates and the repeated failure of educational reforms) are to be anticipated, for they can be understood in terms of the position the school plays in the reproduction of the society and the smooth integration of youth into the labour force. If so, the educational system cannot be reformed without changes in the social and economic structures. As he puts, "To change the egalitarian aspects of schools requires corresponding change in the social, political and economic spheres as well."<sup>13</sup> After years of thinking on education and development, Curle eventually came to the conclusion that while the role of education for increasing productivity and economic prosperity is significant, "the arguments are complex, ambiguous and, moreover, now irrelevant to me because I have reached an understanding of development of which the keystone is justice rather than wealth."<sup>14</sup>

Such a shift of attention in educational reform calls for a review of the nature of the primary objective of education. The instrumentality of education makes students become economic products or producer goods. Hence, to avoid such a dehumanizing outcome, it is necessary to revise our basic attitude towards education. If we want education to be a humanizing process in which people can have time to think, to reflect and remember; if we want school to be a place where people can achieve a certain degree of self-actualization; and if we want school to be a place where people can practise mutual love and mutual concern, it is necessary to do away with excessive competition, spoon-feeding of *knowledge*, and the attitude that education is for profit-making. To achieve all this requires a right attitude in edu-

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<sup>13</sup> Simmons, *op. cit.*, pp. 24-27 and John Simmons, "Steps Toward Reform" in Simmons, ed., *op. cit.*, pp. 235-239.

<sup>14</sup> Adam Curle, *Education for Liberation* (New York: John Wiley, 1973), p. 1.

cation, schooling and teaching, all the technicalities concerned, such as curriculum and finance, although significant, are only of secondary importance. As Goodings and Lauwerys assert, "Tolerance, kindness, sympathy, and a predisposition towards peace cannot be taught directly, and therefore it is difficult to prove that they are more likely to be produced by teaching one subject rather than another. The atmosphere of the school may well be more important than the curriculum."<sup>15</sup>

E. F. Schumacher's remark on "whole men" education is no new notion, however it is certainly neither out-of-date nor a mere cliché. It should be re-emphasized to make human beings re-humanized. He says,

Education can help us only if it produces "whole men". The truly educated man is not a man who knows a bit of everything, not even the man who knows all the details of all subjects (if such a thing were possible): the "whole men", in fact, may have little detailed knowledge of facts and theories, he may treasure the *Encyclopedia Britannica* because "she knows and he needn't", but he will be truly in touch with the centre. He will not be in doubt about his basic convictions, about his view on the meaning and purpose of his life. He may not be able to explain these matters in words, but the conduct of his life will show a certain sureness of touch which stems from his inner clarity... So, unless that person has sorted out and co-ordinated his manifold urges, impulses, and desires, his strivings are likely to be confused, contradictory, self-defeating, and possibly highly destructive. The "centre", obviously, is the place where he has to create for himself an orderly system of ideas about himself and the world, which can regulate the direction of his various strivings.

The problems of education are merely reflections of the deepest problems of our age. They cannot be solved by organization, administration, or the expenditure of money, even though the importance of all these is not denied. We are suffering from a metaphysical disease, and the cure must therefore be metaphysical. Education which fails to clarify our central convictions is more training or indulgence. For it is our central convictions that are in disorder, and as long as the present anti-metaphysical temper persists, the disorder will grow worse. Education, far from ranking as man's greatest resource, will then be an agent of destruction, in accordance with the principle of *corruptio optimi pessima*.<sup>16</sup>

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<sup>15</sup> Richard F. Goodings and Joseph A. Lauwerys, "Education and International Life" in Joseph A. Lauwerys, ed., *Ideals and Ideologies* (London: Evans Brothers, 1968), p. 93.

<sup>16</sup> E. F. Schumacher, *Small is Beautiful: A Study of Economics as if People Mattered* (London:

The promotion of “whole-men” education may not be economical but is certainly essential for the enrichment of the individuals. If we want a healthy society, we must have healthy people. If we want to avert the passivity of education in the course of social change, we must allow education to recover its intrinsic values. If we want to recover the intrinsic values of education, we must abrogate the attempt to treat education as an instrument and allow education to be pursued for its own sake. If we want students to be creative, innovative, and independent in thinking, we must provide a suitable environment which allows their creativity to be respected, not to be assessed according to packaged “model answers”. If we want them to possess such predispositions as tolerance, kindness and sympathy, we must create a corresponding social atmosphere. All in all, education should not be an instrument of producing economic animals but school should be a place where human beings can recover their humanity.

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TABLE 3.1.1 STANDARD SCHOOL HOURS PER WEEK  
IN PRIMARY SCHOOL (JAPAN)

Subjects	Grade					
	I	II	III	IV	V	VI
Japanese language	7	9	8	8	7	7
Social studies	2	2	3	4	4	4
Arithmetic	3	4	5	6	6	6
Science	2	2	3	3	4	4
Music	3	2	2	2	2	2
Art and craft	3	2	2	2	2	2
Home-making	—	—	—	—	2	2
Physical education	3	3	3	3	3	3
Moral education	1	1	1	1	1	1
<b>Total</b>	<b>24</b>	<b>25</b>	<b>27</b>	<b>29</b>	<b>31</b>	<b>31</b>

Note: One unit school hour represents 45 minutes.

Source: Kobayashi, Society, School and Progress in Japan, p. 129.

TABLE 3.1.2 STANDARD SCHOOL HOURS PER WEEK  
IN LOWER-SECONDARY SCHOOL (JAPAN)

	Grade		
	VII	VIII	IX
<b>Required subjects</b>			
Japanese language	5	5	5
Social studies	4	4	5
Mathematics	4	4	4
Science	4	4	4
Music	2	2	1
Fine arts	2	2	1
Health and physical education	3+	3+	3+
Industrial arts (Home-making)	3	3	3
Moral education	1	1	1
Special activities	1	1	1
Elective subjects	4	4	4
(e.g. Foreign languages	3	3	3)
( A vocational subject	1	1	2)
<b>Total</b>	<b>34</b>	<b>34</b>	<b>33</b>

Source: Ibid., p. 131.

Note: 1. One unit school hour represents 50 minutes.

2. Special activities means extracurricular activities such as pupil assemblies, club activities, etc.

TABLE 3.1.3 STANDARD NUMBER OF CREDITS OF UPPER-SECONDARY SCHOOL (JAPAN)

	Grade and number of credits <sup>1</sup>			
	X	XI	XII	Total
Modern Japanese	3	2	2	7
Advanced Japanese classics I	2	3		5
Advanced Japanese classics II			3	3
Ethics-civics		2		2
Political science-economics			2	2
Japanese history			3	3
Advanced world history		2	2	4
Advanced geography	4			4
Basic mathematics	5			5
Advanced mathematics I		5		5
Advanced mathematics II			5	5
Advanced physics		3	2	5
Advanced chemistry		2	2	4
Biology	4			4
Earth science	2			2
Health	4,2 <sup>2</sup>	3	3	9,7 <sup>2</sup>
Physical education		1	1	2
Fine arts	2			2
Advanced fine arts		2	2	4
Advanced English	5	5	5	15
Home-making	2 <sup>2</sup>	2 <sup>2</sup>	2 <sup>2</sup>	6 <sup>2</sup>
Special activities	1	1	1	3
Total	32	31 33 <sup>2</sup>	30	93 95 <sup>2</sup>

<sup>1</sup>One credit consists of thirty-five school hours.

<sup>2</sup>For girls only.

Source: Ibid., p. 133.

TABLE 3.1.4 STANDARD NUMBERS OF CREDITS OF HIGHER EDUCATION (JAPAN)

	Universities		Junior colleges		Technical colleges
	Courses				
	Four-year	Six-year	Two-year	Three-year	Five-year
	Credits <sup>1</sup>				Hours
General education	36	36	12	18	1785
Humanities	12	12	4	6	385
Natural sciences	12	12	4	6	980
Social sciences	12	12	4	6	420
Foreign languages	8	16			770
Physical education	4	4	2	3	350
Professional or specialized education	76	4000 hours	24	36	3640
Additional credits required		8	24	36	
Total	124	64 + 4000 hours	62	93	6545

<sup>1</sup>One credit requires one lecture class of one hour, one seminar class of two hours, and one laboratory work of three hours, each for the duration of fifteen weeks.

Source: Ibid., p. 142.



TABLE 3.1.5 NUMBER OF SCHOOLS, TEACHERS, AND STUDENTS, 1983  
(JAPAN)

	School	Teachers	Students	Student- teacher ratio
Nursery schools*	22,709	180,357	1,957,700	11
Kindergartens	15,189	99,808	2,192,808	22
Elementary School	25,045	473,987	11,739,452	25
Lower secondary schools	10,950	273,703	5,706,810	21
Upper secondary schools	5,369	252,714	4,716,105	19
Universities	457	109,139#	1,834,493	17
Junior colleges	532	17,202#	379,425	22
Schools for the blind	72	3,353	7,273	2
Schools for the deaf	110	4,709	10,328	2
Schools for the handicapped	713	29,268	76,770	3

Source: Facts and Figures of Japan 1985, p. 89.

Note: Figures for the total number of schools include branch schools.

\*1982

#including part-time teachers.

TABLE 3.1.6 PERCENTAGE OF EACH AGE GROUP ENROLLED IN FORMAL  
SCHOOLS 1900-1979 (JAPAN)

	1900	1920	1950	1979
Elementary	6-9 yr 81.5%	6-11 yr 99.0%	6-11 yr 99.6%	6-11 yr 99.98%
Quasi-secondary*	10-11 yr 5.4%	12-16 yr 22.2%	15-17 yr 9.4%	
Secondary#	12-16 yr 2.9%	12-16 yr 25.0%	12-17 yr 69.3%	12-17 yr 95.1%
Higher	17-22 yr 0.5%	17-21 yr 1.6%	18-21 yr 6.2%	18-21 yr 33.7%

\* Quasi-secondary institution include vocational supplementary schools, apprentice schools, youth schools, training institutes, and miscellaneous schools.

# For 1920 students in upper-elementary schools are included. For 1950 students in both lower- and upper-secondary schools are listed. For 1979 students from the first to third grades in technical colleges are included.

Source: Kida et al., "Japan", p. 63.

TABLE 3.1.7 ANNUAL FEES (IN US\$) IN DIFFERENT TYPES OF INSTITUTIONS AT DIFFERENT LEVELS OF EDUCATION, 1980 (JAPAN)

	National Institutions	Local Public Institutions	Private Institutions
Kindergartens	166	191	598
Upper-secondary Schools	225	294	822
Technical Colleges	396	377	1187
Junior Colleges	650	555	1241
Universities	887	775	1750

Source: Cowen and McLean, International Handbook of Education System, p. 242.

TABLE 3.1.8 TEACHERS' PREPARATION AND LENGTH OF SERVICE 1979 (JAPAN)

Academic Background	Elementary- school teachers(%)	Lower-secondary- school teachers(%)	Upper-secondary- school teachers(%)
Graduate school	0.1	0.5	3.4
Bachelor's degree (4 years university)	42.4	62.9	79.9
Two years beyond upper- secondary school	41.8	33.4	15.2
Upper-secondary school	15.7	3.2	1.5
Years of service			
Less than 5	17.9	16.0	15.6
5-10	15.5	12.8	14.9
10-15	9.0	11.7	19.1
15-20	8.1	15.7	15.5
20-25	10.2	14.8	12.0
25-30	16.0	16.0	12.4
More than 30	23.8	13.0	10.5

Source: Kida et al., "Japan", p. 78.

TABLE 3.2.1 THE PRIMARY SCHOOL CURRICULUM  
(SINGAPORE)

SUBJECTS	No. of hours spent per week*			
	Pr. I & II	Pr. III	Pr. IV	Pr. V & VI
First Language	$6\frac{7}{12}$	$6\frac{1}{6}$	$5\frac{7}{12}$	$5\frac{2}{3}$
National Language	—	$\frac{1}{2}$	$\frac{7}{12}$	$\frac{7}{12}$
Second Language	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{2}{3}$
History	—	$1\frac{1}{6}$	$1\frac{1}{6}$	$1\frac{2}{3}$
Geography	—	$1\frac{1}{6}$	$1\frac{1}{6}$	$1\frac{2}{3}$
Science	$1\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{1}{2}$
Mathematics	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$	$4\frac{1}{2}$
Art, handwork and needlework	2	$1\frac{3}{4}$	$1\frac{1}{6}$	$1\frac{1}{6}$
Music	1	1	1	$\frac{7}{12}$
Civics	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{12}$	$\frac{2}{3}$
Physical Education	$1\frac{1}{2}$	$1\frac{1}{6}$	$1\frac{1}{6}$	$1\frac{1}{6}$
Health Education	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$
Assembly	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
TOTAL:	$20\frac{5}{6}$	$22\frac{11}{12}$	$22\frac{11}{12}$	$24\frac{1}{6}$

\* Minor adjustments may be made by the schools.

Source: Education in Singapore, p. 21.

TABLE 3.2.2 THE COMMON SECONDARY I AND II CURRICULUM (SINGAPORE)

Subjects	No. of hours per week*		
	Boys	Girls	
		Taking Technical subjects	Not taking Technical subjects
First Language and Literature	5	5	5
Second Language	3½	3½	3½
National Language	1½	—	1½
Mathematics	3½	3½	3½
General Science	3½	3½	3½
Physical Education	1½	1½	1½
Civics	⅔	⅔	⅔
Assembly	⅔	⅔	⅔
History ) ) Geography)	2½	2½	2½
Home Economics	—	1½	**3
Art and Crafts	1½	1½	1½
Music/Singing	⅞	⅞	⅞
Technical Drawing	1½	1½	*** (1½)
Metalwork ) ) Woodwork ) ) Basic Electricity)	**3	**3	—
Total	28	28	28

\* Minor adjustments are made by schools where necessary.

\*\* Normally outside school hours.

\*\*\* The principal has the discretion to allocate the time to history and geography or to any other subject other than general science and home economics.

Source: Ibid., p. 22.

TABLE 3.2.3 CURRICULUM FOR SECONDARY 1 & 2 (ALL COURSES)  
(SINGAPORE)

At Sec 1 & 2, there is a core of 8 subjects common to the Normal, Express and Special courses. In addition, there are 4 non-examination subjects. These subjects and their recommended curriculum times are shown below:

No.	Subjects	No. of Periods* Per Week
1	First Language & Literature	8
2	Second Language	6
3	Elementary Mathematics	5
4	General Science	6
5	History	2
6	Geography	2
7	Art & Crats	2
8	Technical Subjects (Metalwork/Woodwork) or Home Economics (for girls)	3
<hr/>		
Non-Examination Subjects		
<hr/>		
1	Moral Education	2
2	Physical education	2
3	Singing	1
4	Assembly	1
<hr/>		
		40
<hr/>		

\*Each period is 35-40 minutes

Note: In the 5 course, 'second Language' will be taught at the first language (L1) level.

Source: Seow, Foo and Doris, Education and Examination System in Singapore, Annex 2A.

TABLE 3.2.4 CURRICULUM FOR NORMAL COURSE (SECONDARY 3-5)  
(SINGAPORE)

At the end of S4N, pupils will sit the CSE (Certificate of secondary Education) examination. They will proceed to sit the GCE 'O' level examination at the end of S5N if they have obtained at least 3 CSE passes, one of which must be the First Language (L1).

	No. of Periods Per Week	
<b>A Compulsory Subjects</b>	<b>20</b>	
1 First Language	8	
2 Geography		
3 History		
4 Bible Knowledge or Islamic Religious Knowledge	(Choice of electives varies from 1 to 4 subjects, the number of periods per subject varies from 3 to 8 periods per week)	
5 General science/Physical Science		
6 Human & Social Biology or Biology		
7 Physics		
8 Chemistry		
9 Food and Nutrition		
10 Fashion & Fabrics		
11 General Mousecraft		
12 Woodwork		
13 Metalwork		
14 Art & Crafts		
15 Principles of accounts (Book-keeping)		
16 Commerical Students with TypeWriting		
17 Music		
18 Foreign Language (Frence/Japanese/German)		
<b>C Compulsory Non-Examination Subjects</b>		<b>6</b>
1 Moral Education (Civics/Current Affairs)		2
2 Physics Education		2
3 Singing	1	
4 Assembly	1	
	<b>40</b>	

Source: Ibid., Annex 2B.

TABLE 3.2.5 CURRICULUM FOR SPECIAL & EXPRESS COURSES  
(SECONDARY 3-4) (SINGAPORE)

At the end of S4S or S4E, pupil will sit the GCE 'O' level examination.

	No. of Periods Per Week
A Compulsory Subjects	26
1 First Language	
2 Second Language	
3 Literature or History or Geography	
4 A Science Subject	
5 Elementary Mathematics	
B Elective Subjects	8
1 Literature	
2 Geography	
3 History	
4 Bible Knowledge or Islamic Religious Knowledge	
5 Foreign Language (France/Japanese/German)	
6 Additional Mathematics	
7 General Science or Physical Science	
8 Biology or Human & Social Biology	
9 Physics	
10 Chemistry	
11 Art & Crafts	
12 Music	
13 Fashion and Fabrics	
14 Food & Nutrition	
15 General Housecraft	
16 Commercial Studies or commerce	
17 Principles of Accounts	
18 Woodwork or Metalwork	
C Compulsory Non-Examination Subjects	6
1 Moral Education (Civics/current Affairs)	
2 Physical Education	
3 Music Appreciation/Singing	
4 Assembly	
	40

Note: Pupils may offer from 6 to 8 subjects for the GCE 'C' level-examination. In addition, Bible Knowledge or Islamic Religious Knowledge may be offered as a 9th subjects.

Source: Ibid., Annex 2C.

TABLE 3.3.1 PRIMARY SCHOOL CURRICULUM (HONG KONG)

Group	Level		P 1	P 2	P 3	P 4	P 5	P 6
	Subject	Periods/week						
Basic	Chinese language		11	10	9	8	8	8
	English language		5*	6	7	8	8	8
	Mathematics		5	5	5	5	5	5
General	Health education	}	1)	1)	1)	1)	1)	1)
	Primary science		2) or 5	2) or 5	2) or 5	2) or 5	2) or 5	2) or 5
	Social studies		2)	2)	2)	2)	2)	2)
Cultural	Music		2	2	2	2	2	2
	Physical education		2	2	2	2	2	2
	Art and craft		3	3	3	3	3	3
Total			33	33	33	33	33	33

\* for schools with appropriate facilities and trained staff

Source: The Hong Kong Education System, p. 253.

TABLE 3.3.2 PRIMARY SCHOOL CURRICULUM OF LESS FORMAL APPROACH (HONG KONG)

3. In primary schools adopting a less formal approach (e.g. the 'learning by doing' approach) block timetabling is recommended, as shown in the following examples :

Period	Example A	Example B	Example C
1	Chinese and general subjects*	Chinese and Mathematics	Chinese
2			English
3			Mathematics
4	Physical education	General subjects*	Music
5	English		General subjects*
6	Mathematics	Art and craft	General subjects*
7	Music		General subjects*

\* General subjects : social studies, health education, science

Source: Ibid., p. 254.



TABLE 3.3.3 JUNIOR SECONDARY SCHOOL CURRICULUM  
(HONG KONG)

	Basic model	Variation 1	For Secondary Technical Schools	
			Variation 2	Variation 3
Languages (Note 1)	13	14	13	12
Mathematics	5	5	5	5
Science	4	4	4	4
Social subjects (Note 2)	6	5	5	5
Chinese history	2	2	2	2
Practical (Note 3)	6	6	7	8
Physical education	2	2	2	2
Music	2	2	2	2
Ethical or religious Education (Note 4)	2	2	2	2
Total :	42	42	42	42

- Notes (1) Languages : normally Chinese and English, with six periods a week allocated to one and seven periods a week to the other; this allows schools to give slightly more emphasis to one or other of the languages if they wish.
- (2) Social subjects : history, geography, economic and public affairs, and health education or a combined social studies course consisting of co-ordinated elements of these subjects.
- (3) Practical : normally two co-ordinated subjects - art and design, together with either home economics or design and technology.
- (4) Ethical or religious education : these periods are available for moral education, ethics, religious education or biblical knowledge, according to preference, and may be used occasionally for such purposes as careers guidance.

Source: Ibid., pp. 253-254.

TABLE 3.3.4 SENIOR SECONDARY SCHOOL CURRICULUM  
(HONG KONG)

Subject	Grammar		Technical	
	Form/ Middle IV	Form/ Middle V	Form/ Middle IV	Form/ Middle V
Chinese language	6 - 7	6 - 7	6 - 7	6 - 7
Chinese literature	3 - 4	3 - 4	3 - 4	3 - 4
English (Anglo-Chinese sch)	7 - 8	7 - 8	7 - 8	7 - 8
language (Chinese Middle sch)	7 - 9	7 - 9	7 - 9	7 - 9
English literature (See Note)	2 - 3	2 - 3	-	-
Maths.	Mathematics	6	6	6
	Additional Maths.	3	3	3
Biology	4	4	4	4
Chemistry	4	4	4	4
Physics	4	4	4	4
Geography	4	4	4	4
Chinese history	3	3	3	3
History	4	4	4	4
E.P.A.	3 - 5	3 - 5	3 - 5	3 - 5
Economics	3 - 5	3 - 5	3 - 5	3 - 5
Art and Design	4	4	4	4
Design and technology	6	6	10	10
Commercial subjects	11	11	11	11
Home economics	4	4	8	8
Music	Exam. subject	4 - 5	4 - 5	4 - 5
	Non-exam. subject	1 - 2	1 - 2	1 - 2
Physical education	2	2	2	2
Ethical/ Exam. subject	2 - 4	2 - 4	2 - 4	2 - 4
Religious education Non-exam. subject	1 - 2	1 - 2	1 - 2	1 - 2

Note English literature: normally taught only to pupils with a very high standard of English.

Source: Ibid., p. 256.

TABLE 3.4.1 THE PRIMARY SCHOOL CURRICULA OF JAPAN,  
SINGAPORE AND HONG KONG

Subjects	Hour/week	Japan	Singapore	Hong Kong
Language (a)		5.25-6.75	5.7-6.6	4.5-6.4
Language (b)		-----	3.5-3.7	2.9-4.5
Malay		-----	0.5	-----
Mathematics		2.3 - 4.5	3.5-4.5	2.9
Social Studies		1.5 - 3	2.7-3.8	2.8
Science		1.5 - 3	1.5-2.3	1.3
Music		1.5 - 2.3	0.6-1	1.3
Physical Education		1.5 -2.25	1.2-2.5	1.3
Moral/Civis		0.75	0.5-0.7	---
Arts and Craft		1.5 - 2.3	1.2-2	1.8
Home-making		1.5		---
Total		18-23.3	20.8-24.2	19.25

- Note: 1. For the sake of classification, history, georgraphy and health education are grouped under Social Studies for Singapore, and health education is also grouped into Social Studies for Hong Kong.
2. For Singapore, language (a) stands for the 1st language and language (b) the 2nd language. For Hong Kong, the former stands for the Chinese language and the latter the English language. For Japan, the former stands for the Japanese language.

TABLE 3.4.2 THE JUNIOR SECONDARY SCHOOL CURRICULA OF JAPAN, SINGAPORE AND HONG KONG

Subjects	Hour/week	Japan	Singapore	Hong Kong
Language (a)		4.1	5.3	4
Language (b)		2.5	4	4.67
Mathematics		3.3	3.3	3.3
Social Studies		3.3 - 4.2	2.67	3.3-4
Science		3.3	4	2.67
Music		0.8 - 1.6	0.67	1.3
Fine Arts		0.8 -1.6	---	---
Arts and Craft		2.5	1.3	4
Home-making		2.5	2	
Physical Education		0.8	1.3	1.3
Moral/Religious Ed.		0.8	1.3	2
Vocational Subject		0.8	---	---
Assembly/Special activities		0.8	0.67	---
Chinese History		---	---	1.3
Total		27.5-28.3	28	28

- Note: 1. For the sake of classification, history and geography are grouped under Social Studies for Singapore.
2. For Singapore, language (a) stands for the 1st language and language (b) the 2nd language. For Hong Kong, the former stands for the Chinese language and the latter the English language. For Japan, the former stands for the Japanese language, and the latter is normally English.

TABLE 3.4.3 THE SENIOR SECONDARY SCHOOL CURRICULA OF JAPAN, SINGAPORE AND HONG KONG

Subjects	Hours/Week	Japan	Singapore	Hong Kong
Language (a)		1.6-2.5	5.3	4-4.67
Language (b)		4.17	4	4.67-6
Basic/Advanced Maths.		4.17	---	----
Elementary Maths.		----	4	4
Additional Maths.		----	---	2
Literature/Jap. Classics		1.67-2.5	5.3	2-2.67
Economics		----	---	2-3.3
Econ. & Public Affairs		1.67	---	2-3.3
History		1.67	2-5.3	2.67
Jap./Chi. History		2.5	---	2
Geography/Earth Sci.		1.67	2-5.3	2.67
Advanced Geography		3.3	---	----
General Science		----	2-5.3	----
Physics		1.67-2.5	2-5.3	2.67
Chemistry		1.67	2-5.3	2.67
Biology		3.3	2-5.3	2.67
Arts		1.67	2-5.3	2.67
Advanced Fine Arts		1.67	---	----
Home-Economics		1.67	---	2.67-5.3
Design & Technology		----	---	4-6.67
Commercial Subjects		----	2-5.3	7.6
Music		----	0.67	0.67-3.3
Physical Education		0.83	1.3	1.3
Health Education		1.67-3.3	---	----
Moral/Civics		1.67	1.3	----
Religious Education		----	2-5.3	0.67-2.67
Special Activities		0.83	---	----
Others		----	2-5.3	----
Total		25-27.5	26.7	28

- Note: 1. "Arts" stands for Fine Arts in Japan, Art and Craft in Singapore, and Art and Design in Hong Kong. "Religious Education" stands for "Ethical/Religious Subjects" in Hong Kong. "Economic and Public Affairs" stands for "Political Science-Economics" in Japan. "Others" in Singapore include Food and Nutrition, Fashion and Fabrics, General Housecraft, Woodwork, Metalwork, Principles of Accounts, and Foreign Languages; all of which are electives, varying from 2 to 5.6 hours per week.
2. For Singapore, language (a) stands for the 1st language and language (b) the 2nd language. For Hong Kong, the former stands for the Chinese language and the latter the English language. For Japan, the former stands for Modern Japanese and the latter the Advanced English.

TABLE 4 WORLD ROBOT POPULATION

	No. of Robots Dec' 84	Working Popu- lation x 1000	No. of Robots per 10,000 Workers
Japan	64,000	20,000	32.0
Sweden	2,400	1,350	17.7
Belgium	859	1,350	6.4
Germany	6,600	11,500	5.7
U.K.	2,623	5,500	4.8
France	3,380	7,700	4.3
U.S.A.	13,000	30,000	4.3
Spain	518	1,350	3.8
Italy	2,700	7,800	3.5

Source: "Steady Growth for robots in 1984", The Industrial Robot, 12(1), March 1985, 30.

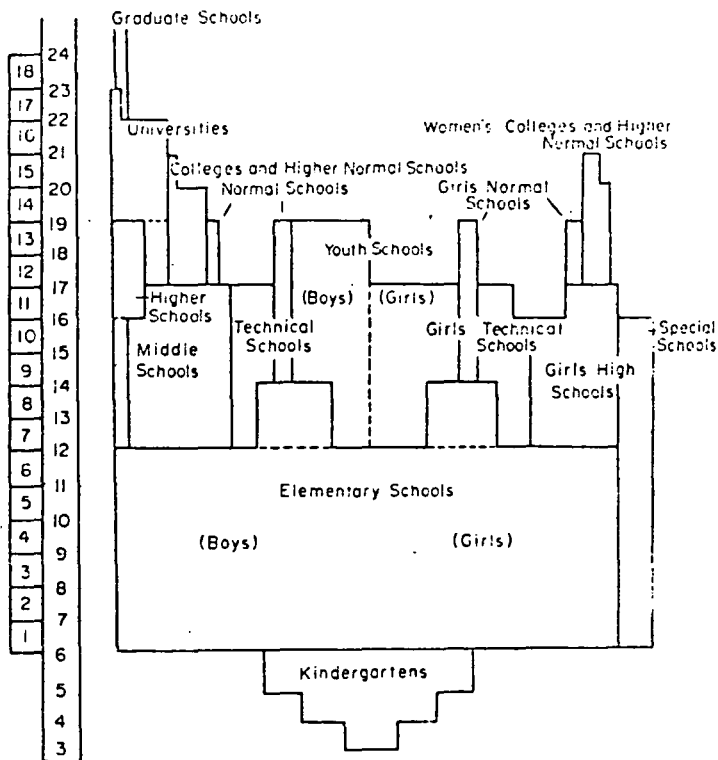
TABLE 5  
Average Scores of the Educational Achievement of Science (1969) in Several Countries

10 yrs old ( full score 40 )		14 yrs old ( full score 80 )	
countries	Av. scores	countries	Av. scores
Japan	21.7	Japan	31.2
Sweden	18.3	Hungary	29.1
Belgium	17.9	Australia	24.6
U. S. A.	17.7	New Zealand	24.2
Finland	17.5	W. Germany	23.7
Italy	17.5		

Source: Kozo Imahori, "Problems of Innovation in Japanese Science Curricula" in Philip Adey, ed., Innovation in Science Education, p. 20.

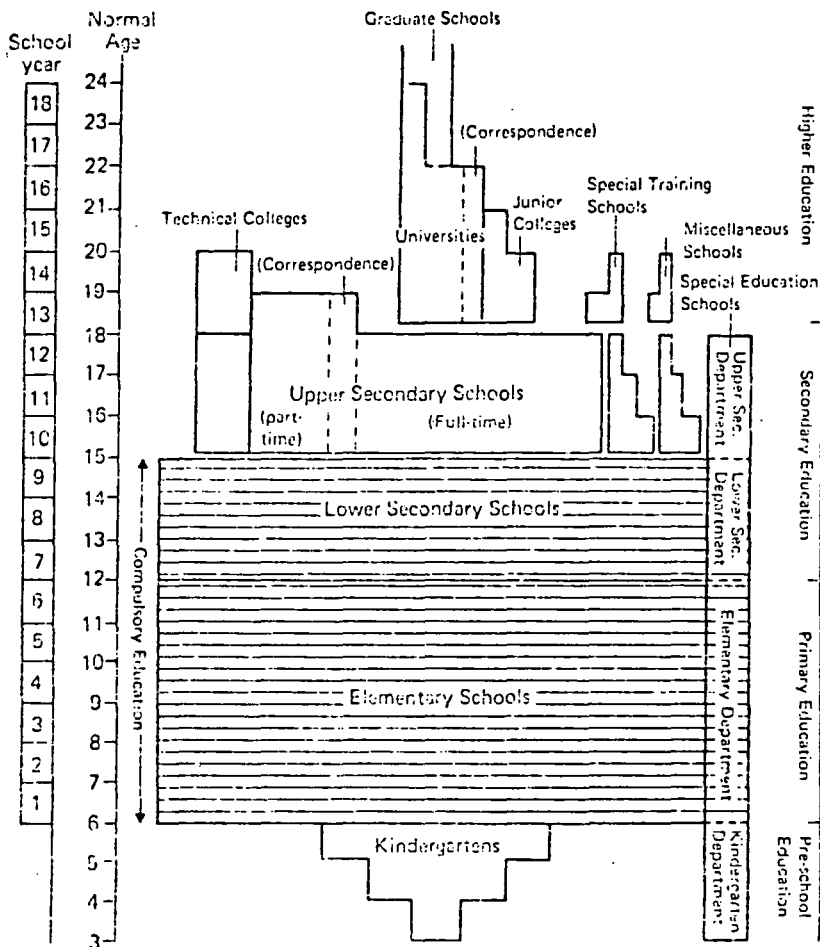
FIGURE 3.1.1 EDUCATIONAL SYSTEMS OF JAPAN IN THE 1940s

Annezes



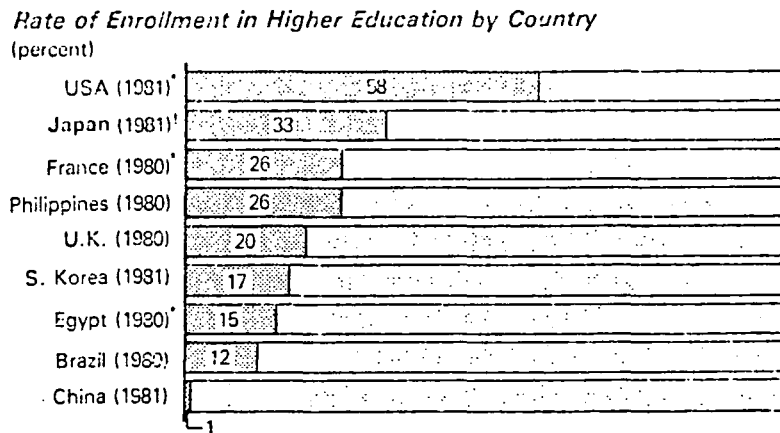
Source: Kobayashi, op. cit., p. 178.

FIGURE 3.1.2 EDUCATIONAL SYSTEM OF JAPAN IN THE 1980s



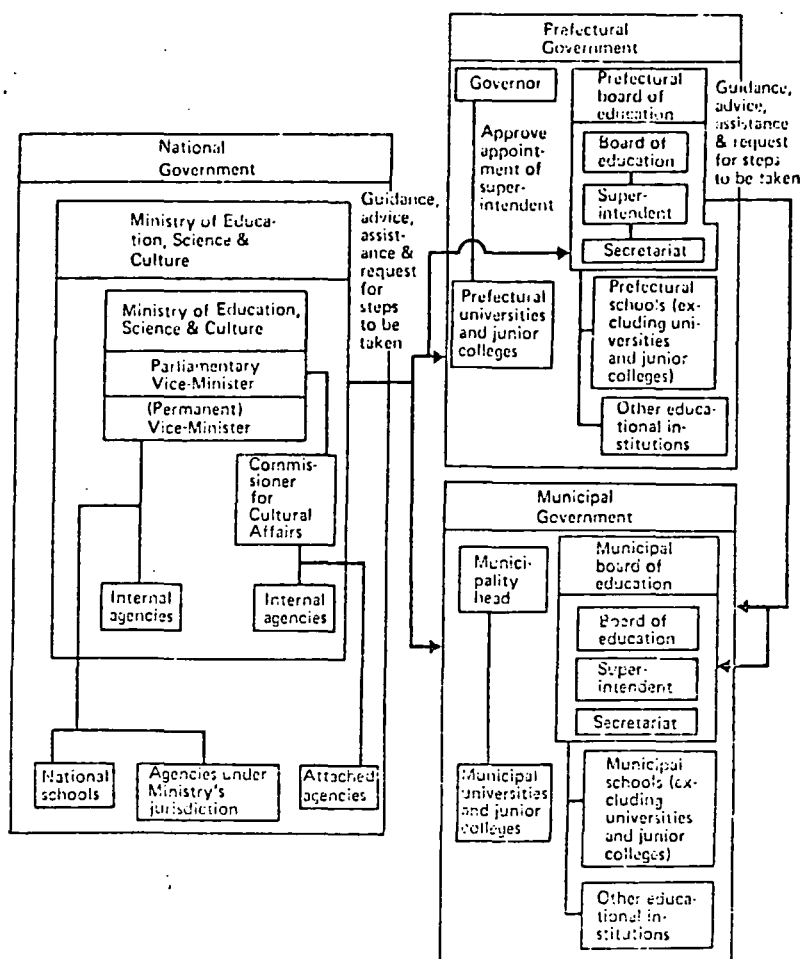
Source: Kida et al., p. 62.

FIGURE 3.1.3 RATE OF ENROLMENT IN HIGHER EDUCATION BY COUNTRY



Source: Facts and Figures of Japan 1985, p. 88.

FIGURE 3.1.4 STRUCTURE OF EDUCATIONAL ADMINISTRATION (JAPAN)



Kida et al., op. cit., p. 65.



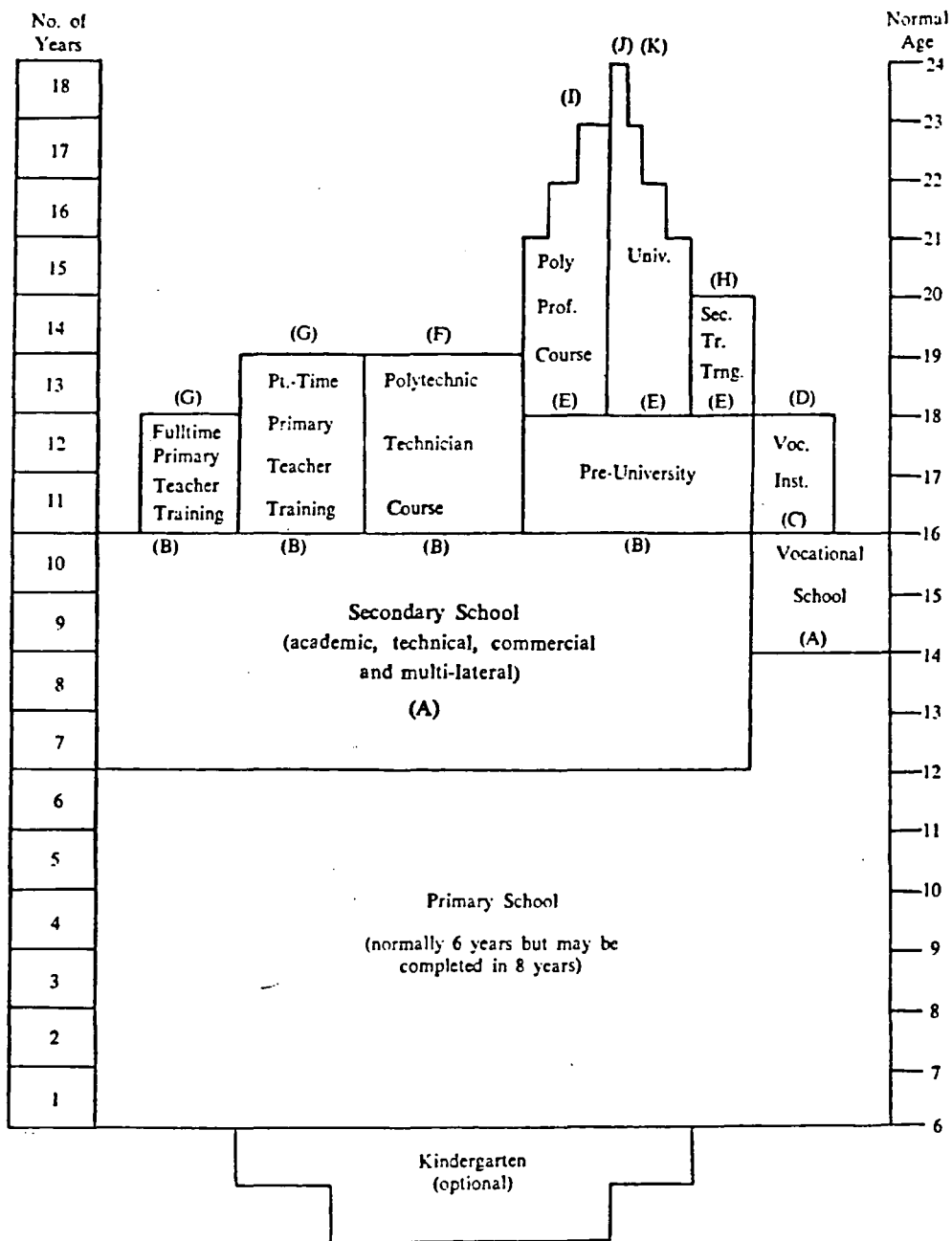
FIGURE 3.1.5 SHARE OF EDUCATION IN PUBLIC EXPENDITURE BY COUNTRY

Japan (1980)	19.6
Switzerland (1980)	18.8
France (1979)	17.8
USA (1977)	17.7
Canada (1980)	17.3
Australia (1980)	14.8
S. Korea (1980)	14.1
USSR (1981)	10.9
W. Germany (1979)	10.1
India (1980)	10.0

Source: Facts and Figures of Japan 1985, p. 39.

FIGURE 3.2.1

### Diagram of Singapore's Education System, 1968

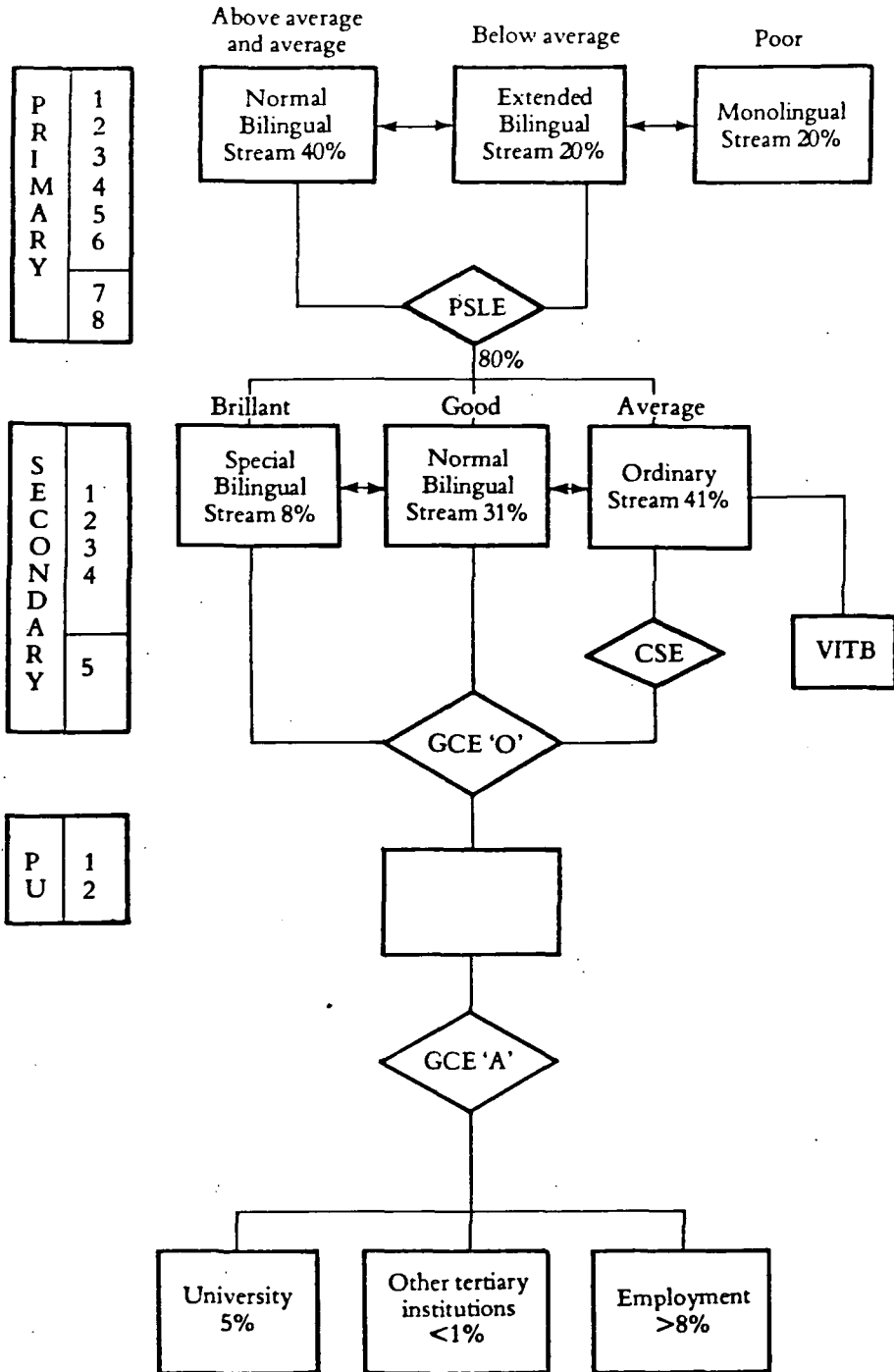


- |                                   |   |
|-----------------------------------|---|
| A — Primary School Leaving Exam.  | G — Primary Teacher Qualification                   |
| B — School Certificate            | H — Lower Secondary Training                        |
| C — Vocational School Certificate | I — Professional Qualification                      |
| D — Craft Certificate             | J — First Degree                                    |
| E — Higher School Certificate     | K — Post-Graduate Teacher Training or Higher Degree |
| F — Technician Diploma            |   |

Source: Doraisamy, 150 Years of Education in Singapore, p. 148. 413

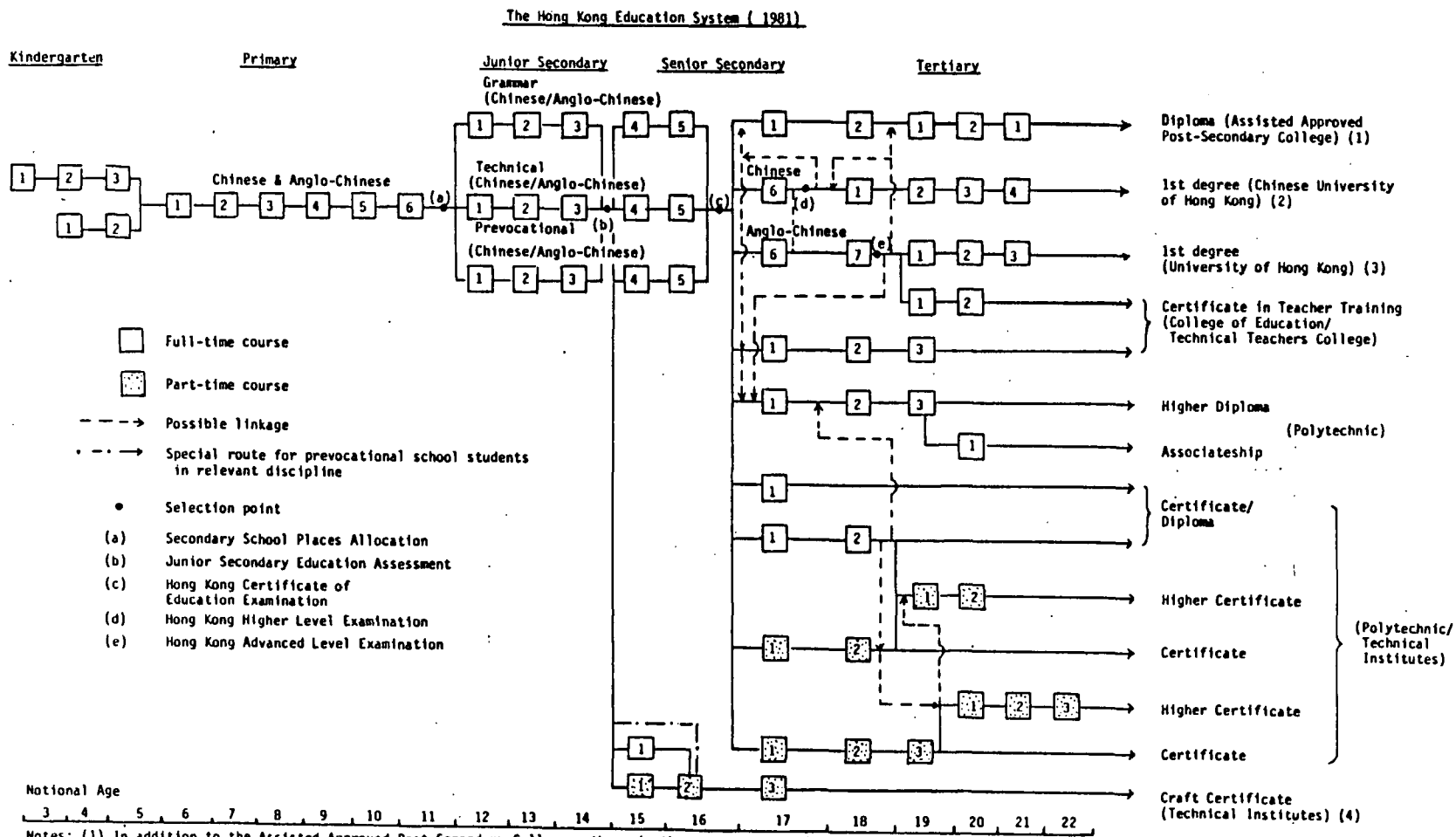
FIGURE 3.2.2

Summary of Revised Education System



←→ Lateral movements

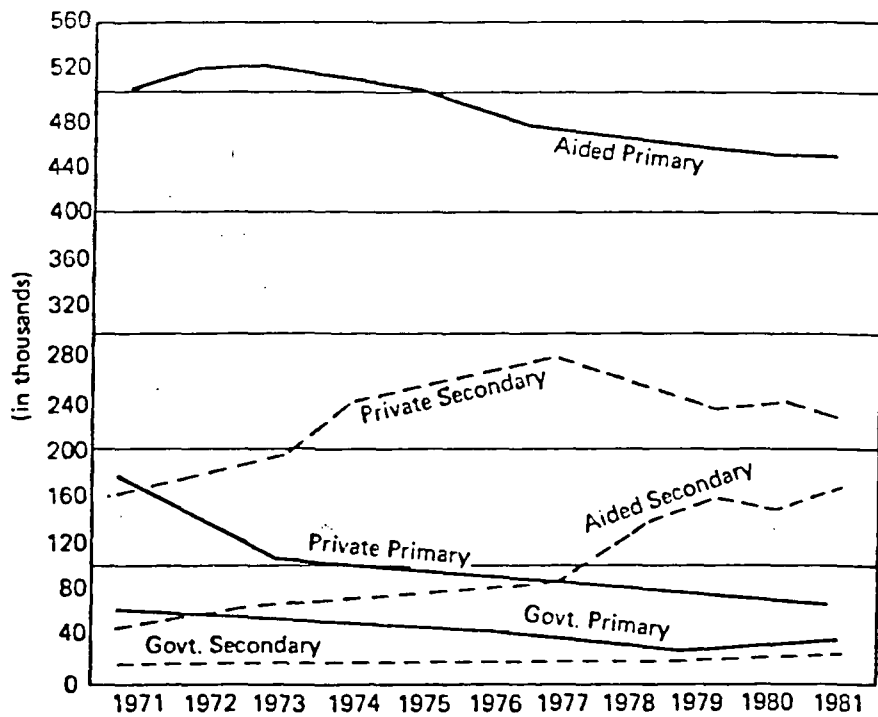
Source: Seah and Seah, "Education Reform and National Integration", p. 265.



Notes: (1) In addition to the Assisted Approved Post-Secondary Colleges, there is the Hong Kong Shue Yan College which offers 4 year courses, the minimum entry requirement of which, in terms of the Post Secondary Colleges Regulations, is successful completion of Form V.  
 (2) 1st degree in medicine requires 5 years of study.  
 (3) B.A. (Bldg.) requires 4 years of study while B.A. (Arch.) and M.B.B.S. require 5 years of study.  
 (4) Student with craft certificate may enrol in the Technician Course after the completion of a bridging course which lasts for a minimum of one year.

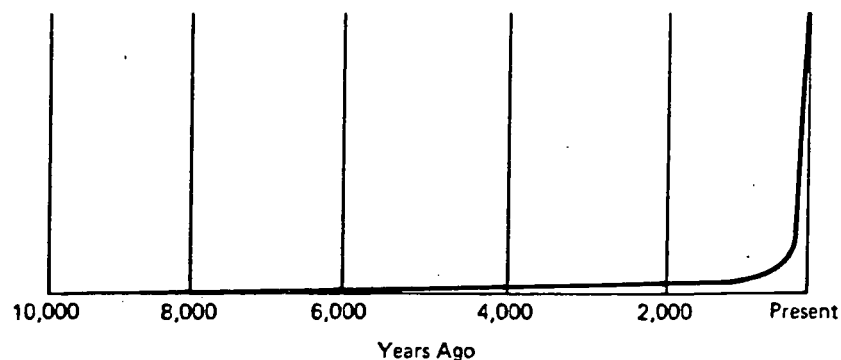
FIGURE 3.3.1

FIGURE 3.3.2 THE TREND OF SCHOOL ENROLMENT (HONG KONG)



Source: Sweeting, "Hong Kong", p. 280.

FIGURE 5 EXPONENTIAL GROWTH CURVE



An exponential growth curve. This curve can be roughly applied to growth in several areas—for example, inventions, energy consumption, or population. For instance, world population growth clearly exhibits exponentiality. At the beginning of the Christian era, there were only 200 to 300 million persons on earth. By 1650 humankind totaled about 500 million. Three hundred years later, in 1950, the figure was more than 2,500 million, and in 1970 it was over 3,600 million. In the year 2000, the world population is expected to be close to 6,000 million.

Source: Steven Vago, Social Change, p. 94.

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\* All Chinese names are translated according to Hanyu Pinyin, unless known otherwise.

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