

# EDUCATION AND SKILLS DEVELOPMENT IN THE TRANSFORMATION OF SOUTH KOREA: SOME LESSONS FOR AFRICA

John McKay\*

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## Introduction

The economic success of South Korea (hereafter, Korea) in its drive to industrialisation since 1961 has excited a great deal of international interest, and in the process has generated a very large body of literature. Many alternative theories have been put forward to account for this dramatic transformation, but one of the most popular has stressed the importance of education and human resource development. It is very easy to demonstrate that at the same time that economic growth was taking place at an unprecedented rate, levels of education and training were also rising rapidly. However, the isolation of the precise causal relationships involved has proved to be more difficult, as has the identification of the precise elements of the Korean approach to education that were most influential and effective. After looking in some detail at this literature, it has to be said that these relationships have not yet been explored satisfactorily, especially at any level of statistical sophistication. But I would also suggest that this may not be very important. What I want to argue has been vital in Korea is the overall mix of factors, the architecture of the system, rather than the details of any particular programmes.

But this line of reasoning leads us to another conceptual problem, that of the transferability of any development experiences. In an earlier paper on Korea (McKay, 2003), I have suggested that in any society it is important to look at the overall features and essential unity of a national system. These characteristics are derived from a complex and essentially unique national history and culture that have given rise to a special *regime* made up of particular institutions and of the special linkages between them. Thus, it is not possible to take any individual feature from any other nation, however successful, and simply bolt it on to the existing system. Not even the market can be transplanted in this superficial way, or some particular vision of democracy; rather, each nation must wrestle with its own particular cultural and institutional matrix. However, what I want to suggest here is that the spirit of some other examples of success may have much to tell us, while recognising that local conditions will influence the manifestation of some new and partially learned vision.

With this in mind I want to present a summary of some of the major features and lessons drawn from the Korean experience of the role of education in development. The

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- Professor John McKay is Director of the Australian APEC Study Centre at Monash University, Melbourne, Australia, and is a former Chair of the National Korean Studies Centre. He is a Founding Partner of Analysis International, a new research institute and think-tank based in Melbourne.

paper is divided into four parts. First, I look at the essential cultural and historical elements and assess the place of education in Korean thought and practice. In particular I evaluate the lasting importance of Confucian thought, although it is also important to look at the influences of Western missionaries and the legacy of Japanese colonial rule. Secondly, I analyse the Korean development experience since 1961, and the place of education within the economic miracle. The vision developed by President Park Chung Hee is especially important, I suggest, but I then turn to the challenges posed by the very success of the Korean drive to modernity and by the broader forces of globalisation. Thus, I look at both what might be termed the first industrial revolution in Korea and then at the attempt which still continues to move the country to a second stage, one that involves advanced technology and leading edge innovation. Here again I consider the educational components that are central to these issues. Thirdly, I attempt to draw the main lessons from this entire experience, and evaluate the level of success that Korea's approaches have enjoyed. Finally, I briefly discuss what relevance these experiences have for Africa, and develop a list of lessons as they appear to me. I argue that there are indeed some important implications for Africa, but if an educational approach inspired by Korea's success is to be attempted, some essential prerequisites must first be attended to. However, educational programmes more generally can also make essential contributions to the achievement of these foundations for development.

### **The Place of Education in Korean Thought and Practice: Some Historical Legacies**

Clearly, the educational system of any nation does not suddenly emerge from nowhere. It is a complex product of a set of historical and cultural forces and is deeply embedded in the institutional structure of the country and its people. It can be influenced by government policies, as lawmakers try to develop new initiatives to meet the demands of local and international environments, but it is almost always heavily influenced by the layers of government policy that have been inherited by current administrations. It should also be open to the various influences coming from civil society, as various community groups seek to express their own particular visions of how new generations should be given new skills, attitudes and motivations. Education will also usually have a practical component, and here business groups will be keen to ensure that they are able to employ people with appropriate skills and cultures of work. Korea is a nation with a very strong sense of its own history and identity, hence it is particularly important to sketch out the various historical and cultural influences that have shaped Korean attitudes to education and their concepts of what education ought to be like. Here I look at three particular historical periods, each of which has bequeathed an educational legacy right down to the present.

#### *The Influence of Confucianism*

It is often said that Korea is the nation in which the influence of Confucius is still the strongest, and this legacy can be seen in many aspects of Korean life. It is undeniable that the influence of Confucianism is bound to decline as a range of local and

international forces respond to new priorities and ideologies (Koh, 1996). Yet, as Kim (1996) has noted, in a number of very important ways, Confucianism continues to be at the very centre of much of Korean life, and it is being constantly reproduced and renovated. It is particularly important in family life, especially in the practices of raising and educating children, and Korea remains one of the most family oriented societies in the world. Thus it is still important to look briefly at the principles of education that underlie Confucian philosophy.

It is first necessary to recognise the Confucianism is in no real sense a religion, rather it is philosophy of life and of good governance. Confucius (551-479 BC) was firm in the belief that the government of the state should only be entrusted to a moral and properly educated elite, and it was the nature of that education rather than some accident of birth that should allow access to political power. Confucius, in the major collection of his thoughts and sayings, *The Analects*, has much to say about education, its nature and its role in society. For example:

The love of humanity without the love of learning degenerates into silliness. The love of intelligence without the love of learning degenerates into frivolity. The love of chivalry without the love of learning degenerates into banditry. The love of frankness without the love of learning degenerates into brutality. The love of valour without the love of learning degenerates into violence. The love of force without the love of learning degenerates into anarchy.

(Confucius, *The Analects*, Book 17, Chapter 8)

Collect much information, put aside what is doubtful, repeat cautiously the rest; then you will seldom say something wrong. Make many observations, leave aside what is suspect, apply cautiously the rest; then you will seldom have cause for regret. With few mistakes in what you say and few regrets for what you do, your career is made.

(Confucius, *The Analects*, Book 2, Chapter 18)

For Confucius, learning and political leadership had to go hand in hand. The government and administration of the nation could only be entrusted to a class of educated and moral gentlemen. Only they had the authority and the moral force to be effective and trustworthy. Thus, political power could only rest with the educated elite. Any person, however humble his background, should have equal access to education and therefore to power, but such was the prestige attached to education that any learned man, however poor and powerless, still commanded much more respect than someone merely wealthy. The major force of learning was moral improvement, and intellectual growth was seen as the only path to ethical self-cultivation. Any bad deed or poor decision had to be the result of a lack of knowledge, hence any person responsible for such acts needed to be taught new ways of seeing the issues, and then they could be relied upon to behave properly. Education was more important than riches, because life was not about *having* but *being*. From learning come self-cultivation, and an ethical personality. This leads in turn to the achievement of social harmony and the establishment of the ideal state (Lee, 2002). Self-cultivated men, well versed in the Confucian classes, offered themselves for the state examination and if successful were recruited into the bureaucracy. Members of

the government service were expected to rule by example, living exemplary lives based on the application of Confucian ideals, and applying these standards to others.

This strict Confucian orthodoxy became the official ideology of the Choson dynasty (1392-1910). While a definite class structure did exist, success in passing the civil service examinations became the major path for social advancement of those of lowly birth, although as time went on there was something of a hereditary requirement on exam candidates. The system then became dominated by the aristocratic gentlemen scholars (*yangban*). The educational system underpinning this structure and providing candidates for the all-important examination system consisted of private and public institutions of varying quality and level. At the peak was the national university (*Songgyun-gwan*) founded in 1398, and until the Japanese annexation in 1910 this was the most prestigious institution in the land (Adams & Gottlieb, 1993). The curriculum at this and other colleges consisted of a narrow study of the Confucian canon, providing a background which eventually was proved inadequate to deal with an increasingly encroaching and demanding modern world, yet many of its key values have survived.

Education was structured and the basis of rigid class distinction and male centered values. The social tendency to authoritarianism sexual discrimination and aversion to menial labour is the Confucian legacy that is still very much felt in the educational sectors today...But the Confucian educational tradition has provided Koreans with a reasonable way of thinking, a strong moral sense, and a zeal for education by stressing that man can be a man only through education.

(Park Sum-Youn, 1991, p.22)

### *Western Missionary Influences*

The first Christian missionaries came to Korea from the United States in 1885, and one of their first initiatives was the founding of a number of high schools, including a girls' school, the first in the country. Gradually a wider network of establishments was set up, including a number in provincial areas, and these continued to operate during the Japanese colonial period. One of the most important reasons why Christianity continues to thrive and expand in Korea derives from the key role that the churches played in leading opposition to Japanese rule. The Christian schools produced many of the leaders of the resistance movement, and the values of freedom, human rights and equality espoused by the churches were taken up by Korean nationalists. The churches also did much to alert the rest of the world to what was happening to Korea under Japanese rule. As a result, the churches came under increasing pressure from the Colonial authorities to display patriotism to the emperor and to encourage their members to participate in Shinto ceremonies (Nahm, 1996). Eventually, in 1935, persecution of Korean Christians began, and many of the churches were Japanised and amalgamated with counterparts in Japan. Those that resisted this move were closed and their assets confiscated. This resistance, which continued right up to the end of Japanese rule in 1945, is still remembered as an important contribution to Korean freedom. The liberal, Western and individualistic ethic of these churches, most importantly the various American Protestant groups that have

been very active in the country for many years, has now influenced many generations of young Koreans, right down to the present (Selth, 1988).

### *Japanese Colonial Rule*

The period of Japanese rule, which began as a Protectorate in 1905 and was extended to a full annexation in 1910, is vividly remembered in Korea as a time of great shame and suffering. Yet some of the educational innovations introduced by the colonial administration had a profound impact on later policies. Korea was administered as an integral part of the Japanese territories, in a way that contrasts with the colonial practices of the British and French for example, and Koreans were encouraged to become Japanised, although they were treated as very inferior subjects. Educational policy in the Japanese colonies was set out in the Japanese Imperial Rescript of Education, and was designed to be a key element in the production of a common devotion to the emperor (Adams & Gottlieb, 1993). Separate schools were set up for Koreans and for Japanese students living in the colony. Rim (1952) has argued that there were four key elements in this policy:

- Denationalisation – forcing Koreans to transfer their loyalty to the emperor.
- Vocationalisation – emphasising in the education of Koreans the skills needed for low level tradesmen. Education was not generally provided beyond primary level.
- Deliberalisation – ignoring both the humanities and the advanced scientific and trade courses in Korean schools.
- Discrimination – giving a quite different and superior curriculum to Japanese students in Korean schools.

Under these policies, the study of Japanese language in schools became compulsory for Korean students and the use of the Korean language was outlawed in education. Koreans were forced to replace their Korean names with Japanese style names. These edicts were particularly unpopular with Koreans, and remain some of the most often quoted abuses of the colonial period and a continued cause of Korean enmity towards Japan.

There were obvious problems with these policies, but some positive impacts in education should be recognised from this period. First, the number of students in school expanded gradually under Japanese rule, and by the 1940s was far ahead of the educational participation rates achieved under the earlier Korean rulers. By 1944, there were 75 4,146 public primary schools, with an enrolment of 2.1 million children. Some 40 per cent of all Korean children aged 7-14 attended at least first grade. Of these schools, 1,563 were in rural areas. The level of participation at middle and secondary levels was much lower, but by 1944 there were 75 middle schools for Korean boys, with some 41,000 pupils, and there were 76 such schools for girls, with 32,500 students. In addition there were 18 public and private colleges (Nahm, 1996). This represented a sizeable investment in modernisation, which as many commentators have noted was sadly lacking in the late Choson period. Secondly, the importance of technical and

vocational education was well established: by 1944 there were 268 vocational schools with an enrolment of more than 60,000 trainees (Grajdanzev, 1944). Particularly significant was the growth of agricultural vocational training. As Clyde noted at the time:

The greatest contribution made by the system of education which Japan has given Korea has been in the field of agriculture....Courses in agricultural guidance are given to graduates of common schools in the rural districts, while groups of selected students receive further training at the government experimental stations in the provinces.

(Clyde, 1937, p. 444)

Thirdly, the schools and colleges were not the only medium of education in the colony. The Japanese military academy recruited a large number of Koreans at various levels, and a chosen few attended officer training in various Japanese military colleges, including for some the Japanese Military Academy in Tokyo. This provided invaluable insights into Japanese methods of organisation as well giving training in the purely military sphere. One of these students was Park Chung Hee, who later became a general, and following a coup in 1961 assumed the presidency of Korea. These earlier experiences proved central to his vision of how to transform and develop Korea, and his contribution in these areas, including the re-making to the educational system, are universally recognised as pivotal to the achievement of the entire Korean miracle.

### **Education and the Korean Economic Miracle After 1961**

Following the military coup of 1961, Korea embarked on one of the most dramatic economic and social transformations ever achieved in human history, made all the more remarkable because of the massive devastation that had been inherited from the Korean War (1950-53). For the entire period between 1961 and the 1997 an average growth rate of some 9 per cent was achieved, a truly staggering performance. In 1961 Korea was one of the poorest nations in Asia, with a per capita income rather lower than that of Ethiopia, and much inferior to that of Ghana, but by the late 1990s a per capita income in excess of \$US 10,000 was achieved and Korea was accepted as Asia's second member of the OECD. In spite of the traumas of the 1997 Asian crisis, this progress has been maintained. Throughout this period, and true to Korea's Confucian legacy, the role of education has been seen as crucial. Over the period since 1961 there have been, of course, some major readjustments of government policy, and these will be explored below, but the commitment to education has been steadfast. One measure of this is that Korea now has more Ph.D.s per head of population than any other nation in the world. But it is also important to see how educational policies have been enmeshed with other economic and social agendas to produce the desired outcomes at particular times.

#### *Park Chung Hee's Vision and Programme*

Shortly after taking power, Park Chung Hee presented a blistering attack on the weaknesses of the nation, as he perceived them:

Being tired late at night, I close my eyes and mentally trace back the difficult course of our national history. Our historical legacies, I reflect, are too heavy on our shoulders and only seem to impede our progress. Especially painful has been our national suffering since the Liberation of 1945; in the course of the past 17 years, two corrupt and graft-ridden regimes created the basis of today's crisis, keynoted by a vicious circle of want and misery.

But, I ponder, is there no way for national regeneration? Is there no way to mend our decayed national character and build a sound and democratic welfare state? Is there not some way to accomplish a "human revolution", so that our people may stop telling lies, cast away the habits of sycophancy and indolence, and make new start as industrious workers, carry out social reform, and build a country without paupers, a country of prosperity and affluence?

(Park Chung Hee, 1962, p.3)

The regime that was progressively implemented in the 1960s was a unique and highly successful developmentalist system, very clear in its goals and remarkably single-minded in their pursuit. In the literature on the Korean "miracle", great emphasis has been given to certain elements of the Korean system, in particular the role of the government and the conglomerates (*chaebol*). However there have been strong differences of opinion on just how effective was this intervention in creating development beyond what would have occurred through simple market-led processes. Until recently we lacked any detailed evidence on just what the government of Park Chung Hee was aiming to achieve in its approach, and how it thought about and planned its interventions. However, a pioneering study by Kim Hyung-A (1996), who has analysed detailed records from this era, and in particular has gained access to some of the key officials then at the core of the programme and its implementation has provided the answers. Her results make it clear just how detailed was the planning, particularly in the phase of heavy and chemical industrialisation after 1972. This was not just a plan for the economy, but involved all parts of the society, and also included in its scope foreign and defence policy. The vision was to create a prosperous, strong and self-reliant nation, free from outside interference, especially from the United States, and able to defend itself effectively against any threat from North Korea. The creation of new industries was the immediate aim, but in order to achieve the planned targets it was essential to transform the nation through broad economic reconstruction, development of skilled manpower, national land development and the creation of a strong national defence. The planning approach used was very precise, even scientific. O Wonch'ol, the key official in charge of the programme, argued that his aim was to leave as little as possible to chance, using an engineering approach that left no room for either politics or emotion. He also suggested that an authoritarian approach to government was essential, at least in the short term, to give the technocrats a free hand to implement agreed plans. Thus, to O Wonch'ol the repressive *Yusin* constitution imposed in 1972 was an integral and necessary part of the drive to industrialisation.

Space does not allow any more detailed discussion of this fascinating story (for a more detailed discussion see McKay, 2003), but the basic point I am trying to highlight, one which is entirely consistent with regime theory, is that there was a strong and essential coherence in the Korean system from 1961 into the 1980s, and especially after 1972. The government was quite clear how all the pieces fitted together to create a

working whole, and this included areas well beyond the reach of many normal concepts of economic planning. The process of catching up with the more advanced countries involved a national effort to learn, imitate and improve, involving technology, product innovation, market development, management upgrading and much more, a system that has become known as *learning*, and involving *organisational learning*, *technological learning*, *resource leverage* and a number of other processes essential for successful late industrialisation (Mathews & Cho, 2000).

Education had an absolutely central role in this integrated strategy. In the detailed analysis of how Korea achieved its miracle, undertaken jointly by the Korean Development Institute and the Harvard Development Institute, for example, an entire volume is devoted to education (McGinn *et al.*, 1980), and in her much quoted study of this period, Alice Amsden (1989) has a whole chapter on the impact of rapid educational growth.

Certainly the expansion of the educational system at all levels was extremely impressive. To be fair, significant increases in enrolments had already been made in the period between 1945 and 1960, but reform really gathered pace after 1961. Thus by 1975 elementary school enrolments had reached almost 5.6 million, and expansion of 410 per cent over 1945 levels. Given the neglect of post-primary education during the Japanese period, it is not surprising that the rates of growth in other parts of the system were even higher. During the same time period, numbers in middle schools grew by 709 per cent, in academic high schools by 1,287 per cent, in vocational high schools by 1,432 per cent, and in higher education by 3,794 per cent (McGinn *et al.* 1980, p.5). The range and intensity of vocational training of various kinds were also expanded, including a very large programme in agricultural training and extension. Adult literacy programmes were expanded very rapidly. Thus, by 1970 adult literacy had reached 88 per cent, compared with 22 per cent in 1945. But there was a serious attempt to improve the quality of education as well as the numbers in the system. In higher education, for example, the new regime instituted salary increases for staff, foreign study opportunities, research grants and a range of curriculum reforms (Kim Jongchol, 2000).

In terms of total investment, Korea moved quickly ahead of all other developing countries in terms of both educational outlays as a percentage of GDP, and outlays per pupil, which is a rough measure of educational quality. Between 1970 and 1985 real expenditures per student rose by 355 per cent in Korea, compared with 38 per cent in Kenya and 13 per cent in Pakistan. Funds were directed at the removal of the gender gap in enrolments. Universal primary education was achieved by 1965, and by 1985 secondary education had been extended to 88 per cent of the population. As a number of commentators have argued, the extension of education to females has far reaching and very positive effects for the development process, and this is one key area in which East Asia has been well ahead of other developing countries at similar stages of per capita income (see, for example, World Bank, 1993).

But it was not just the expansion of the numbers in various parts of the education system, nor even the gradual increase in quality that I want to emphasise. Rather, and

more relevant in terms of the purpose of this paper, I want to focus on the various ways in which education was integrated into the broader goals of development. I want to pay particular attention to five policy issues that were the hallmark of the approaches followed during this crucial period: a strong human capital approach, which stressed the centrality of education and skills in all aspects of development; a close relationship between planning targets for education with those for job creation; the realisation that once started on a path of export-oriented industrialisation, restructuring and change would be permanent features of Korean life, with special implications for education; the recognition of education as a key mechanism for the economic and social mobility of individuals; and, the acknowledged role of education in creating national identity, cementing national determination to succeed, and legitimating the regime.

Before embarking on an analysis of each of these key policy areas, it is imperative to note just how complex was this policy agenda, and how success in implementation depended upon the leadership and vision of an effective state apparatus. By now much has been written of the character and power of the East Asian developmental state, but it must be re-emphasised that the existence of such a state was a pre-requisite for everything that has been achieved in Korea and some other key nations in the region. Peter Evans (1995) has argued that state capacity in East Asia has depended upon the presence of what he calls *embedded autonomy*. The state must be autonomous in the sense of being independent of any entrenched classes or interest groups, and thus able to act in the national interest. But they must also be embedded, able to receive clear messages from all sections of the community and have linkages that are sufficiently strong to ensure the co-ordination and implementation of policies. Equally important is Pempel's (1999) observation that developmental states must also successfully mediate between international forces and local interests, between economic and political realities. At the same time, we should not be seduced into thinking that the East Asian model of the developmental state is the only possibility for achieving high growth rates. Within East Asia there were important differences between the approaches adopted within individual nations, depending in part on local conditions, institutional histories and so on.

The Korean government had a clear idea of the importance of human capital in the achievement of development in all sectors and at all levels, and this is a key area that has received much attention in the literature on Korea educational policy. Amsden (1989), in her analysis of the Korean development experience, makes much of the concept of *late industrialisation*, arguing that newcomers must utilise successful techniques for *industrial learning*. Such processes are very different from those used by the initial industrialisers in Europe and North America, hence there may be more lessons here for those arriving even later to the scene. In such circumstances, she argues the presence of a well-educated labour force, both white- and blue-collar, becomes even more crucial. Using a number of international comparisons she demonstrates that at all levels the Korean labour force was better educated than any of its competitors. By the late 1970s adult literacy had reached almost 100 per cent, and the large majority (almost 75 per cent) of process workers had some secondary education. Similarly, Korean managers and engineers were well educated by international standards at this time. In contrast to earlier stages in world industrial development, the phenomenon of the

university-trained engineer and manager became commonplace in Korea; something which Amsden argues is integral to a new stage in global change. As in Japan in the earlier stages of its own industrialisation, the clear emphasis was on catching up with the more advanced countries. This involved acquiring (often by copying!), applying and improving already existing Western technology – or, in Korea's case, Japanese technology. This required quite different skills from those used in, for example, the British industrial revolution, and those with a good education had a decided advantage, she argues. The weakness in this system, as has often been acknowledged, is that few managers had had the time to acquire adequate levels of experience, and this was something that needed special attention, often through the importation of foreign experts who could give special advice, especially in the early stages.

The emphasis on education and skill formation was underlined by the ways in which from the very beginning education was built into the planning activities of a range of important government research and policy institutes such as the Economic Planning Board, the Korean Development Institute and the Korean Institute for International Economic Policy. A number of specialist institutes were set up in the area of education, training and skills formation, notably the Korean Educational Development Institute, and in related areas of science and technology, for example the Korea Advanced Institute of Science and Technology. All of this analysis and policy work was co-ordinated through the Economic Planning Board and the Blue House, the office of the President (Ashton *et al.*, 1999). At various times specialist task forces were set up through the Blue House to deal with particular issues.

I have already noted the strong cultural preference for education derived from Confucianism, but this has been enhanced in the modern era by the reward system in Korean government and private employment, which has ensured that the positive returns to investment in education are clear to all. In Confucian philosophy, scholars were given particularly high status, and this has been extended to the system of salary scales that have usually prevailed since 1961. Amsden (1989) suggests that the gap between managers and production workers in Korea is relatively high by international standards. Between 1971 and 1984, for example, managers earned about four times as much as manual workers. Rates of return to education, she suggests, are highest at the university level, but even here there are important variations. There is a strict hierarchy of prestige among universities and the *chaebol* have been willing to pay much more for the top graduates from the most prestigious universities. Thus, there has been enormous competition to gain entry into Seoul National University and the other best known institutions, and this competition has extended to the best high schools, primary schools and even pre-schools. One result of this frantic competition had been the investment by many parents in private tutors for their children, and this in turn has meant that Korean students spend enormously (some would say excessively) long hours over their studies.

One of the key functions of the economic planning and co-ordination organisations mentioned above, was to ensure that when new jobs were created there were sufficient numbers of workers with the right level and mix of skills, and that schools and universities did not produce large numbers of graduates in fields in which

employment was limited. Thus, there was an attempt to match supply and demand, to ensure the optimal sequencing of economic development and skill formation, and to avoid the creation of a large pool of qualified but unemployed graduates, a situation commonly reported in South Asia, for example. This was possible because the government kept tight control over growth in the economy, and was able to foster preferred directions in sectoral development through its tight management of the financial system (Woo Jung-en, 1991). Similarly, the budgets and course sizes and mixes of the schools and universities were closely monitored and controlled. One of the slogans for the 1960s was “education for economic development”, and care was taken to keep the two closely synchronised (Adams & Gottlieb, 1993), although of course this match was not always perfectly achieved. These policies included the planning of teacher training targets. With the launching in 1972 of Park Chung Hee’s ambitious Heavy and Chemical Industrialisation programme, the importance of science, technology and engineering skills increased sharply, hence the co-ordination across the educational and scientific institutes was intensified. This included a strong emphasis on vocational education, and emphasis inherited from the Japanese colonial period. Park Chung Hee took a particular personal interest in this planning process, based on his conviction that the very success of the entire push into heavy industry was dependent on having the right mix of skills available at the right time. By 1980, more than one in three junior high school students was studying engineering or science (Ashton *et al.*, 1999). The President ensured that the private sector was closely involved here, and this included some financial contribution to training needs.

Par Chung Hee was in power from 1961 until 1979, a period during which Korea underwent enormous change and was able to achieve high rates of growth, but it was also long enough for the President to convince his planners and the nation that change and restructuring were now a permanent feature of Korean life. Park’s aim was to create nothing less than a modern nation able to compete with the best in science, technology and industry, a staggering ambition for a country that in 1961 was on a par with Ethiopia. The transformation was seen in a series of stages beginning with simple labour intensive activities such as clothing and footwear, but moving quickly in 1972 to more sophisticated and technologically demanding heavy industries. In part this first transition was driven by the desire for greater profits and to generate better jobs, but there was also a crucial strategic component. In 1972 the United States recognised China, and Korea felt that it was being deserted by its major ally against North Korea. Thus it became imperative from Park’s viewpoint to create a series of industries that were important for national security and for a self-reliant armaments capacity. Major steel, chemical, heavy construction and shipbuilding industries were created at this time, and Korea is now a major world player in all of these areas. But survival at this level has been dependent upon constant upgrading of skills and technologies, and this has had profound consequences for the education system. But the educational system itself has also been used to get across the message of constant upgrading and restructuring, so the public resistance to constant change has been minimised. As we shall see later, this message has been particularly important in the modern era with the need to keep up with forces of globalisation. An innovation introduced by Park Chung Hee that has been important in this national effort to plan for the future has been the institution at various times of

national commissions of enquiry to deal with specific issues, and membership of these bodies has intensified the level of co-operation between government, the private sector, labour organisations and community groups.

We have already seen that wage differentials in Korea between managers and production workers have been set relatively high, encouraging individuals to invest in their own and their children's education, although it should be pointed out that income inequalities in Korea are rather small compared with many other countries at similar stages of development (World Bank, 1993). This has re-emphasised the Confucian belief in the importance of learning, and has cemented the view that education is a key mechanism for personal mobility in both economic and social terms. This is particularly important since Koreans have, true to their Confucian heritage, very strongly stated views on what jobs are desirable and which are not, and a burning desire to achieve the status that a good career brings. There is widespread disdain for manual labour and for jobs that in popular parlance are called "3-D" – dirty, dangerous and difficult. A number of writers have talked about the clear hierarchies that exist on the shop floor where unmarried high school graduates with relatively low wages but holding the status of "managers" could lord it over much older married women with many years of experience (Kim Hyun Mee, 1995; Lett, 1998). Over the years a number of public opinion surveys have been undertaken on Korean perceptions of their class positions. All of these polls have shown that in the Korean mind, education is by far the most important class marker, distinguishing between lower and middle classes. They have also shown that the desire to have enough money to pay for a good education for one's children is the most important priority for most Koreans. Political and social stability have been enhanced over the years by the rapid creation of new jobs and the creation of the educational places to allow students to develop the skills needed for these new careers. This has been seen by many commentators as the single most important public policy achievement in Korea in the period since the 1960s.

The growth of educational opportunity, and of the new jobs that are thus accessed as a means of social and economic advancement, have also served to build nationalism, national pride, and the resolve to go even further in nation building. At the same time the legitimacy of the regime has also been enhanced. East Asians, and particularly Koreans, are intensely proud of what they have achieved in such a short time. After emerging from the profound sense of shame that surrounded the Japanese colonial occupation, national pride has now been regained, and a feeling that nothing is now impossible for the country. This awakening and rebirth of national pride, what some commentators have called "the Asianisation of Asia" has been hugely important in my view in cementing development and providing the will to go still further (see, for example, Ingleson, 1996; Berger & Borer, 1997; Vervoorn, 1998). This success story has, of course, been re-told in Korean schools with great pride and as an inspiration to the next generation.

### *Problems of Success, Challenges of Globalisation*

By the early 1980s, not long after the departure of Park Chung Hee, there were signs that the Korean system that had been so successful in generating the first stages of

development was in need of reform to deal with a new environment, both internally and internationally. By 1986 it was clear that such reform was now an urgent national priority. Some of these problems were the result of Korea's rapid success, while others reflected the emergence of a new set of international forces that we now call globalisation.

The growth of Korean industry after the mid-1960s and the diversification of the economy into more sophisticated and higher value products in the 1970s produced very large export earnings. At the same time, the United States in particular was recording progressively larger current account deficits, largely the result of the flood of imported goods from Japan and the Asian Tiger economies. In an attempt to deal with this problem, Japan was pressured to re-value its currency, making its exports more expensive and United States exports more competitive in the Japanese market (Gilpin, 2000). The signing of the Plaza Accord in September 1985 resulted not only in the appreciation of the Japanese *Yen*, but also similar increases in the values of the Korean *Won* and the Taiwan *NT\$*. The impact on the competitiveness of Korean exports was of course very serious.

Adding to this effect was the simultaneous appearance of new competitors in other Asian countries able now to produce simple manufactures at a lower cost. Korea had acted as a successful role model for a number of countries, and they were anxious to follow a similar path of transformation, generally using similar models for growth. The most significant of these competitors was China, but at the same time industrial growth also accelerated in a new generation of 'Little Dragons' – Malaysia, Indonesia and Vietnam in particular. Ironically, much of the success of these competitors was fuelled by investment from Japan, Korea and Taiwan, as companies sought lower cost labour for their more routine operations.

A further effect came from the growing demands for democratisation in Korea, again the result of the successful growth of earlier years. As we saw earlier, the growth of industrial employment and the rapid growth of average incomes saw the birth of a very large 'new' middle class. Predictably this group, with its relatively high level of education and incomes, was unwilling to put up with the heavy-handed authoritarian rule that had characterised the earlier years. Based on a number of detailed surveys, Shin (1999) has shown that the level of education was one of the leading variables in determining the extent of support that individual Koreans had for democratic reforms. A series of political protests and increasingly violent street clashes with the riot police came to a head during the presidential campaign of 1987. The candidate of the ruling party, Roh Tae Woo, was forced to promise a series of democratisation measures to ensure that he was elected, and these measures were gradually introduced during the next few years. These included the relaxation of rules governing political activity, removal of press censorship, the decentralisation of a number of powers to the provinces, and the partial liberalisation of controls on trade union activity.

The result of the combination of these factors was immediate and devastating. In 1987 the Korean *Won* appreciated 16 per cent against the US\$, and moved even higher in

1998. As the result of the relaxation of controls over trade unions, many years of pent up demands for wage increases were released. In the second half of 1987 there were no less than 3,600 recorded strikes, and this led to wage increases of 21.6 per cent in 1988 (McKay & Missen, 1995). In the past, the Korean government had always taken care to ensure that wage increases were always below the growth rate in productivity, ensuring that the economy constantly enhanced its international competitiveness (Amsden, 1989), but this shock damaged Korea's market position in a very serious way.

As a result of all of these internal and external shocks, Korea was faced with making the difficult transition to a much higher technology industrial economy, relying on products that were not so sensitive to increases in labour costs. This search for new technologies, new products, and most importantly the capacity to generate home-grown innovations at the cutting edge of international developments is a long and complicated story, and one which is not yet really complete. There have been many problems and failures along the way, as well as some notable successes. In part the economic crisis that hit Korea in late 1997 grew out of the structural weaknesses that had not really been resolved after a decade of effort (McKay, 2003), but the rapid recovery since then is indicative of continued progress.

Given the strongly nationalistic tone of Korea's development since 1961, it is not surprising that particular emphasis should have been given to the enhancement of local capacities for industrial innovation (Mathews & Cho, 2000), and this has direct consequences for our discussion of the role of education in the Korean development system. Even before the impacts of the Plaza Agreement and the unstoppable demands for greater democratic freedoms, a number of commentators had been arguing that Korea would have to make a concerted move into higher technology, and to embrace the emerging forces of globalisation, if the country was to maintain its impressive growth record.

An ambitious agenda for change was launched immediately after the inauguration of Kim Young-Sam in 1993, and implementation of various initiatives followed gradually. All of the rhetoric was of 'a national rebirth' and of 'a new Korean state' (Cotton, 1995), but the unifying political theme that was adopted was that of responding to globalisation. The President, in a speech in January 1995, outlined his vision as follows:

Fellow citizens, globalisation is the shortcut which will lead us to building a first-class country in the 21<sup>st</sup> century. This is why I revealed my plan for globalisation and the government has concentrated all of its energy in forging ahead with it. It is aimed at realising globalisation in all sectors – politics, foreign affairs, economy, society, education, culture and sports. To this end, it is necessary to enhance our viewpoints, way of thinking, system and practices to the world-class level... We have no choice other than this.

The comprehensive programme of globalisation, which became known in Korean as *Segyehwa*, had four major dimensions (Samuel Kim, 2000):

- *Economic globalisation.* This involves the modernisation of the economic system, upgrading of investment and trade programmes, and relationships with foreign corporations. The stress here was on competitiveness, R & D and the creation of knowledge industries. This was to be achieved by financial, corporate, labour and public sector reforms and the creation of a knowledge-intensive economy.
- *Social and cultural globalisation.* Involved here were a wide variety of areas, including the media, education, social practices and institutions, women's rights, workers' rights, social welfare, and tourism. Policy goals included educational reform, the creation of social welfare safety nets, restructuring of the mass media and the guarantee of human rights.
- *Diplomatic globalisation.* Korea's relationships with the outside world were to be transformed to reflect the modern, democratic and globally aware status of the nation. Links with various international organisations were to be upgraded, and this included the successful application to join the OECD. Economic diplomacy supporting the revitalisation of the Korean economy and its trade and investment overseas was also seen as a priority (Dent, 2002).
- *Security globalisation.* This involved a review and redefinition of Korea's security priorities. Central here was the definition of a new kind of approach to dealing with North Korea, stressing reaching out to the North and building dialogue and co-operation – what eventually became known as the “Sunshine Policy”. The alliance with the United States was also reviewed, as was Korea's participation in various international agreements such as the Non-Proliferation Treaty.

Looking specifically at the education components of these policy goals is rather difficult in such a short paper, because educational change underpinned so many of the other areas. Various reforms were instituted in the educational sector itself, particularly in higher education, but some problems were seen to inhibit the performance of the entire system. A particular target was the large amount of rote learning that had traditionally been required at all levels of education, coupled with the excessive amounts of private tutoring and homework that had grown up, and the stressful period of “examination hell” that led up to the various entrance examinations that would admit students to the next step on the educational ladder. There were constant complaints that independence of thought was discouraged, and innovative and critical thought stifled (Ashton *et al.*, 1999). A Presidential Commission on Educational Reform was established and recommended that strenuous efforts must be made to produce students with a much higher level of creativity, in order to enhance national competitiveness: the need was not just for “good students” but for “clever students”.

Higher education was seen as having a crucial role here. More diversity and flexibility were needed in the system, it was argued. The universities should be able to contribute much more to a process of lifelong learning in the community, should link with government and industry in a major effort to upgrade the nation's R & D capacity, and should assist in the upgrading of vocational education (Ashton, *et al.*, 1999; Weidman & Park, 2000). Universities were encouraged to develop stronger links and co-operation agreements with a range of overseas institutions, and large grants were given to each of very top universities (especially Seoul National, Yonsei and Korea Universities)

to develop new internationally oriented curricula, student exchange programmes and joint research projects. The use of English was encouraged, and each university was expected to run some of its mainstream courses in the global language. It would be fair to say that the *Segyehwa* programme was at best a partial success, but the groundwork was done for later reforms, and certainly the universities benefited from the re-orientation of their approaches that was instituted at this time.

In early 1998, when Kim Dae Jung came to power, he already had a reputation as a champion of a new, outward-looking and democratic nation, and he also saw education as central to this reform agenda. He called for “nation-building based on science and technology”:

Korea can no longer compete in the low-end market on the basis of low prices. It must now produce higher-quality goods with higher added value, which requires a higher-quality education. Especially urgent is quality improvement in vocational training and higher education. Fortunately, Koreans have inherited a valuable asset from their forefathers, namely the fervent desire to educate their children. This desire, no matter how poor the parents may be and no matter what sacrifices they have to make, has made up for the inadequate government effort and has laid the foundation for a rapid economic development that is the envy of the world. However, there is a limit to how far parental desire can carry the education system. In an age in which scientific and technological progress are travelling at an unprecedented speed, the government must take a bold initiative and invest in general education and research in basic and applied sciences, providing incentives for the business sector to participate in skills training and to invest in research and development.

(Kim Dae Jung, 1996, pp. 205-6)

This philosophy very much informed what Kim Dae Jung tried to achieve during his period in office, which ended in early 2003. During this period the need to move to the front rank of industrial nations through the upgrading of local education and technology became something of a national obsession. The government realises that there is much to do yet, and that many of the structures that produced rapid growth in the earlier period will have to be transformed to meet the new circumstances. In two recent reports, the World Bank (Yusuf & Evenett, 2002; Yusuf, 2003) has argued that innovation is now the key to further progress in East Asia, and that the achievement of this new dynamic age will take many years of effort, and will require enormous concentration and investment. They suggest a number of immediate priorities in countries such as Korea:

- *Reform and restructuring of the banking system.* A responsive banking system is needed to divert capital from less competitive firms to new, dynamic high-tech entrants.
- *Corporate governance reform.* This has lagged behind in East Asia, and much need to be done to build up suitable legal and institutional structures.
- *Educational reform.* The number of new graduates is adequate, but quality remains a problem in many areas. Skills in creative and analytical thinking are at a premium in the new environment and need to be encouraged in the education system at all levels.

- *Computer support.* Computer usage has built up rapidly in the region, but there is a need for better supporting services of various kinds.

As Kim Linsu (2003) has argued, it may be that the 1997 Asian crisis may turn out to be a blessing in disguise for Korea. The need for reform in a number of areas was made clear, and the shock of the crisis created sufficient political will both within the government and the wider community to make another national effort, similar in scope to the one of the 1960s. He points out that significant reforms have already been made in the government, financial, corporate and domestic sectors, and research and development activities within companies, universities and government research institutes have all had some clear successes. Computer usage is widespread and thanks to a major government effort broadband penetration is now the highest in the world, allowing Korea to claim that it is the “most wired society on Earth”. The World Bank has suggested that East Asia is now entering the second round of its transformation, and it is much too early to say how things will turn out. My own prediction is that Korean determination and hard work will again triumph, because the price of failure is regarded as being too high. If success is to be achieved it is certain that education will again be at the core of the national development programme, as it was in its first industrial transformation.

### **Evaluation of the Korean Experience and its Success**

I have tried in a short space to give some idea of the Korean story of development and of the place of education with in it. This is surely an exciting story and one that ought to inspire every developing nation keen to embark on a journey of transformation of its own. Korea began with very few natural resources and a population impoverished by several years of war. To be sure, the global strategic situation meant that Korea gained some important advantages in terms of access to international assistance of various kinds. But the story I have tried to tell is essentially one of national struggle, determination and sacrifice, plus the use of a good deal of intelligence and long-term planning. As such, there ought to be some lessons for all small countries with large aspirations. A number of researchers have attempted statistical analyses to identify the causal relations between educational expenditures and developmental outcomes (see, for example, McGinn *et al.*, 1980), but of course the results have been somewhat ambiguous. There is no doubt that educational expenditures increased and economic growth and social change followed, but the causal chains are complex. What I believe was most important was the overall picture or regime, and the place of education within it. However, I do believe it is useful to present some key conclusions and what I see as the salient lessons:

- *Government policy and co-ordination.* This has been absolutely central in my view. The state had the crucial capacity to initiate change and see it through. Whatever his faults, Park Chung Hee had a vision of what Korea might become. He made enormous efforts to put this into practice, and in many ways this vision has been essential to the programmes of subsequent administrations.

- *Co-operation between government, business and community organisations to achieve national goals.* In the initial stages, government and business worked very closely together, and new forms of alliances are now being worked out. In the later stages, community groups have also become important.
- *A comprehensive approach to government planning.* Given its particular geopolitical situation, Korea has been forced to plan for its national survival as well as for its economic well being. Industrial strength and defence capability have gone hand-in-hand. This has forced planners to take a very broad view.
- *Policy linkage.* Government operated for the most part as a coherent whole, so that policies were linked together in time and space as needed for success. For example, the educational system and the employment generation system were sufficiently co-ordinated to ensure that there was not a situation of shortages of skills in neither new areas of development nor a large pool of unemployed graduates.
- *Equity.* Confucian ethics stress the responsibilities of the ruler to the subjects, and thus Korea has always followed a relatively equitable pattern of growth. The result has been the creation of a dominantly middle class society, with incomes well above those prevailing only four decades ago. One result has been a generally high level of legitimacy for the regime for most of the period.
- *International focus.* From the beginning, Korea has concentrated on export markets as the key determinant of success for its industrial development. Thus, international competitiveness and the general needs and trends in the international environment have been major drivers of the planning system.
- *The importance of cultural factors.* I have tried to demonstrate how cultural and historical factors have been central to many of these developments. Confucian ethics are still a major driving force in Korea society, even among younger people.
- *The centrality of education.* I have tried to argue that education was at the core of the remarkable transformation that took place after 1961, and is again at the centre of what the country is trying to achieve in its second industrial revolution. This contribution was multi-faceted and included skills development and capital formation; the provision of the means for economic and social mobility; the creation of national identity, national pride and the determination to succeed; and the realisation that the imperatives of restructuring and re-education are permanent and on going.
- *Constant upgrading of educational quality.* Educational reform is a never-ending process. As was note, the need in Korea now is not just for good students, but for smart students. The new challenge is to create innovation through critical and analytical thought, and this is providing a completely new environment in which policy makers must operate.
- *The importance of vocational education.* The Korean educational strategy was very broad based and at various times stressed agricultural education and extension, and applied vocational studies necessary to provide skills for a range of new industries. Thus learning was highly valued, but could also be very practical in nature, and need not involve degree status.

### **Some Lessons for Africa**

Finally I want to look briefly at the question of what all of this experience means for Africa. The tendency is for many people to conclude that Korea represents an unattainable level of success, something to which Africa could never aspire. However, I have tried to argue that Korea began from a very low base only four decades ago. In 1961, Korea had a per capita income below almost every African country. Others would argue that the historical circumstances of the 1960s and 1970s were very different from those prevailing now, and that it is much more difficult to achieve rapid growth in the current circumstances. There is a good deal of truth in this, but there is also evidence to suggest that if globalisation is used skilfully and imaginatively then a similar transformation is not out of the question. Others would suggest that the cultural situation in Korea was quite different to that prevailing in Africa, and that various cultural factors, mainly deriving from Confucianism, were essential in driving the Korean miracle. Again, there is some truth in this point. But I would also argue, for example, that respect for learning and the desire to educate one's children for success in life is not a uniquely Asian value. I want to suggest that the experiences of Korea do indeed have some relevance for Africa, but that this will involve the implementation of some key foundations and prerequisites as well as some specific educational strategies.

The key prerequisites seem to me to be:

- State development and the enhancement of state capacity.
- The creation of greater national cohesion and a sense of national purpose.
- The articulation of a medium- and long-term vision of where the country wants to go.
- The creation of a state bureaucracy with the capacity to plan and implement this national vision.
- The building of greater co-operation between government, business and various community organisations.
- The development of a leadership structure and of leadership qualities equal to this task of national transformation.
- The creation of the ability to scan the international environment, to identify challenges, dangers and possible opportunities.

I would argue that education of various kinds can play a role in all of these essential tasks of national construction. As Korea has demonstrated, educational programmes, if well designed, can enhance national feeling and resolve, as well as providing skills of various kinds.

Within the education field itself, the Korean experience suggests that some important priorities include:

- The recognition of the importance of education as a national priority for economic as well as social development.
- The building of manpower planning capacities to ensure that situations of skill shortage or surplus in particular areas do not arise.

- The development of capacity for vocational training as well as for more academic forms of education.
- The stressing of a broad base to education, including adult literacy and education for life and a constant process of restructuring.
- An emphasis on leadership training at all levels.
- The beginning of a capacity to search and interrogate the external environment, and draw local lessons from international trends.

These are complex and large tasks, and probably cannot be accomplished with some very carefully targeted assistance from the international community. However, the Korean experience suggests that it is local effort, imagination and tenacity that are the key ingredients. The important thing, in my view, is not to attempt to copy the details of any particular success story and learn from its particulars. Rather, the need is to digest the broad features and above all the spirit of what was achieved. If this is borne in mind, I believe that the Korean experience has some important lessons for Africa, and should certainly act as inspiration.

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