

# Aspects of Further Education in the Republic of Korea

**INTERNATIONAL  
REPORT FROM  
THE INSPECTORATE**

**1997-98**

**THE  
FURTHER  
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## THE VISIT

1 This report is the result of a visit by inspectors from the Further Education Funding Council (FEFC) to the Republic of Korea in March 1998. The group also included an industrialist member of the FEFC's quality assessment committee and an official from the Department for Education and Employment.

2 Members of the group were privileged to meet with senior members of government, and senior officials from the ministry of education (MoE), government agencies and local education authorities. They visited a wide range of education and training institutions offering provision similar to that of the further education sector in the United Kingdom. The visits are listed in annex A and brief details of the authorities and institutions in the list are given in annex B. The aim of the visit was to report on aspects of the education system which are particularly relevant to the United Kingdom and in this way to develop a better understanding of the strengths and weaknesses of our systems. It was not the group's intention to report on the quality of education in the Republic of Korea.

## MAIN FINDINGS

3 The visit took place at a time of considerable change for the Republic and its education system. After decades of rapid industrial growth, rising prosperity and low unemployment, the Republic's economy was in crisis, and the national currency falling rapidly in value. A new government had been in office for a few weeks only. The education system was part way through a major reform programme and the authorities and institutions visited were embracing reforms while having to adjust to new economic realities.

4 At a national level the visiting group found:

- a profound emphasis throughout Korean society on the fundamental importance of education for individual and national wellbeing and success

- a recognition by government that education is a critical factor in determining the success, or lack of success, of its social and economic strategies
- a clear and unflinching analysis of the strengths and weaknesses of the educational system by the government and its agencies
- effective implementation of short-term and long-term strategies to deal with educational issues
- significant additional funding from government to reward schools and colleges which perform particularly well
- effective use of a payroll levy on large companies to fund vocational training.

5 In the organisations visited, the group found:

- succinct and practical statements of aims which guide the work of the institutions
- a stress on the importance of developing cultural and moral values
- continuing and substantial strands of general, cultural and ethical education in the curriculum of all students
- an emphasis on records of achievement and continuous testing rather than selection through major external examination systems
- that pupils acquire effective basic skills before the age of 16
- impressive emphasis on the new technologies in the curriculum, and as a teaching tool
- a productive partnership between industry and education/training institutions
- a high status given to 'master craftsmen' in industry.

6 Among the Korean people, the group found:

- a high level of enthusiasm and financial support for education by parents
- strong determination and discipline on the part of trainees and students

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- a sense of pride in the educational institutions and their history by all who work in them
- emphasis on an academic university qualification, rather than a vocation, as the most desirable goal.

## ECONOMY AND GOVERNMENT

### Key Points

- a highly urbanised, ethnically homogeneous society
- a national strategy to grow through exports and overseas investment in manufacturing
- a significant investment by Korean companies in the United Kingdom
- decades of rapid economic growth halted by the current economic crisis
- a new government which took office in February 1998
- inclusion of education as part of the wealth of the nation

7 The Republic of Korea was established as a separate state in 1948, following the partitioning of the Korean peninsula. Since then its history has been turbulent. Relationships with its northern neighbour state have often dominated the political scene. A declaration of non-aggression was signed between the two countries in 1991 and this has led to calmer times. Almost two-thirds of the country is mountainous and covered by forest and the population of about 45 million is highly urbanised. By 1994, 84 per cent of the population lived in urban areas, compared with 41 per cent in 1970. The capital city, Seoul, has a population of almost 11 million. The Republic is one of the most culturally, ethnically and linguistically homogeneous countries in the world. This homogeneity has been a significant enabling factor in its economic and educational development.

8 The economy has shown remarkable growth over the last 30 years, controlled by a series of five-year national plans. Gross domestic product (GDP) has grown annually by between 7 and 9 per cent since the 1960s, and the economy has moved rapidly from an agricultural to an industrialised base. Exports, mainly consisting of textiles and clothing, transport equipment, electrical and electronic equipment, and some raw materials, increased annually by between 15 and 27 per cent from 1965 to 1988. The Republic produced 34 million tons of steel in 1994, making it the sixth largest steel producing country in the world. Most of this steel goes to supply the Korean motor vehicle, shipbuilding and construction industries. The Republic of Korea is a member of the Organisation for Economic Co-operation and Development (OECD) and, until overtaken by recent events, was ranked as the world's eleventh largest trading nation.

9 Traditionally, the economy has been dominated by *chaebol* (conglomerates), such as Hyundai, Samsung and LG Electronics, which operate a wide range of industrial and service businesses. The present economic crisis in the country has been ascribed, in part, to the weakening economic position of some of the *chaebol*. In addition, several Korean banks had undertaken heavy short-term borrowing to finance longer-term investments. In December 1997, the government agreed a package of aid from the International Monetary Fund.

10 Business links between the Republic of Korea and the United Kingdom are well established. Korean investment in the United Kingdom is currently estimated at £7 billion. Samsung, Hyundai and LG Electronics have established substantial manufacturing facilities at various sites across the UK and have planned further developments. Currently, 25 per cent of Korean investment in European manufacturing industry comes to the United Kingdom. The value of Korean imports to the United Kingdom increased from just over £9 billion in 1991 to approximately £15.5 billion in 1995.

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11 The labour force in the Republic of Korea numbers almost 21 million, 46 per cent of the total population. Unemployment has been low, at around 2 per cent, until the steep rise provoked by the recent crisis. At the time of the visit, Korean newspapers were quoting redundancies of up to 10,000 a day. Women make up 40 per cent of the labour force, which is only 1 per cent higher than in 1980. Between 1991 and 1995, the labour force grew annually by over 2 per cent, making it one of the fastest growing in the world. The number of workers employed in manufacturing declined from 5 million to 4.8 million between 1991 and 1995 while the number of workers in the utilities and services sector grew from 8.9 million to 11.1 million. The population has experienced significant improvements in health, and corresponding increases in life expectancy over the last 30 years. Declining birth and death rates have reduced the proportion of the population under 14 years of age by between 1 and 2 per cent annually over the last five years. However, this age-group still represents 24 per cent of the total population. Two years' military service is compulsory for young men.

12 The Republic of Korea is a comparatively new democracy. It is governed by a national assembly elected for a four-year term. A president, directly elected for a five-year term, holds executive powers which are prescribed in the constitution of 1987. The new president, elected in December 1997, took office on 25 February 1998. The president selects a state council of up to 30 members, headed by a prime minister. State council members may be members of the national assembly, but they are answerable to the president and not to the assembly. The country has nine provinces and six cities with provincial status. Provincial governors and city mayors were elected for the first time in 1995. Previously they had been appointed by central government. In 1996, full local elections for provincial and city councils took place for the first time.

13 The religions, beliefs and values in Korean society today derive from a complex blend of traditions that reach back 5,000 years. They include shamanistic myths, Buddhism, Confucianism and Christianity. Confucianism became the state religion in the fourteenth century and it has remained so for some 500 years. Its heritage, witnessed today by the high regard for social stability, reverence for age and history, and respect for learning, is still strong. Industrial and political leaders refer to education as the bedrock of society. Education is revered both as a source of stability and as the way to 'promote change through human treasure' (Chairman Tae-Joon Park).

## THE EDUCATION SYSTEM

### Key Points

- strong central control of education and effective methods of implementing plans
- the continuation of almost all students in full-time education to the age of 18, despite the charging of fees
- separate academic and vocational high schools and colleges
- encouragement of highly selective specialist schools
- the growth of educational institutions designed to provide lifelong opportunities for learning
- ministry of labour responsibility for vocational training and the providers of training
- a clear and valued route for progression in craft skills

### Overview

14 The whole of the education system in the Republic of Korea has been closely controlled by central government and developed through a series of five-year national plans. Under this firm

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control, the system has developed at an astonishing rate and brought about remarkable improvements in the skills of the population. In 1945, only 30 per cent of children aged six to 11 were enrolled in school and about 78 per cent of those over 12 years of age were illiterate. By the 1980s almost all children were attending school from the age of six to 18 and, by 1991, the adult illiteracy rate had fallen to 3.7 per cent (UNESCO, 1991). All this was achieved despite the fact that much of the education system required, and still does require, the payment of fees.

15 Kindergartens are attended by 45 per cent of three to six year olds. Elementary school education (from age six to 12) is compulsory. Middle school education (from age 12 to 15) is not compulsory in most of the country. However, over 99 per cent of children transfer to a middle school after their primary education. High school education (from age 15 to 18) is also voluntary but, again, almost 99 per cent of students completing middle school education enter high schools (Ministry of Education, 1998). Almost half the students who complete high school education go on to higher education. Kindergarten, elementary, middle and high school education is offered to students with learning difficulties and/or disabilities in 114 special schools. Almost 23,000 students attend these schools. The education system is summarised in figure 1, and more details are given in annex C.

16 Many schools at all levels are privately owned, often by religious foundations. These

schools are not comparable to ‘independent’ schools in the United Kingdom. The regulations that control the curriculum, enrolment, and staff in public schools also apply to private schools. Students or their parents have to pay fees to attend both public and private schools.

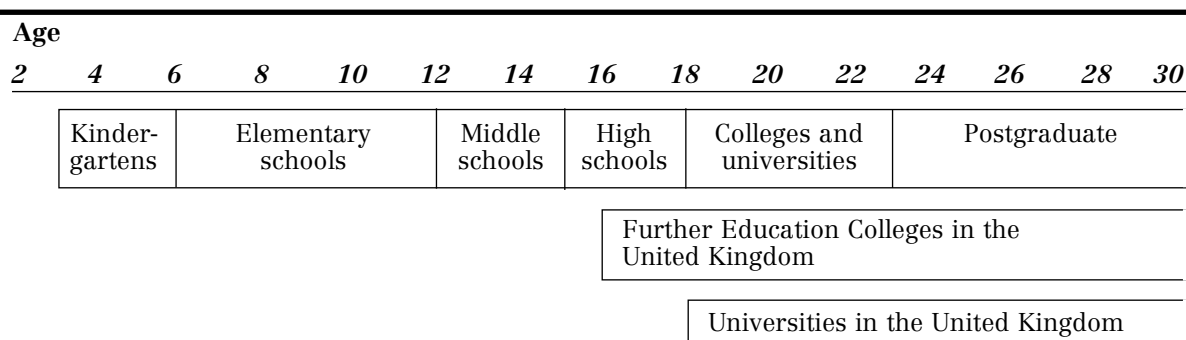
## High Schools

17 Around half the high schools are privately owned. The period of study is three years and students completing their studies are awarded a high school diploma. The work of high schools corresponds to much of the work carried out in the further education sector in the United Kingdom.

18 High schools include:

- general or academic high schools whose students are aiming mainly for university entrance. There are over 1,000 academic high schools providing education for nearly 1.4 million students
- vocational high schools which aim to help students to develop mainly job-specific skills. Almost 800 vocational high schools provide education for nearly one million students. Vocational high schools are categorised into specialised fields such as technical, commercial, agricultural, fishery, information technology (IT) and oceanology. Some offer several different vocational courses. Government policy is aimed at increasing the proportion of middle school graduates who enter vocational high schools. In 1980, 31 per cent of high school students were in vocational schools;

**Figure 1. Main pathway in the education system in the Republic of Korea**





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by 1997 this proportion had risen to 41 per cent (Ministry of Education, 1998)

- highly selective, specialist high schools which aim to produce future leaders in a specific discipline. Since 1983, 15 specialist science high schools have been founded, with a current enrolment of about 3,700. There are also 16 specialist foreign language high schools and others which specialise in art or athletics.

## ***Air and Correspondence High Schools***

19 Correspondence high schools and 'high schools of the air' are open to those who missed the chance to complete their education. There has been a rapid growth of these schools, from 11 in 1974 to 42 in 1997. Entry criteria are determined by the local office of education. Students study over three years and take examinations to gain a diploma, which is regarded as equivalent to a high school diploma.

## ***Higher Education***

20 Institutes of higher education are divided into four main categories: universities; teachers' colleges and colleges of education; junior colleges; and open universities. There are just under 140 colleges and universities, with a total of 1,267,000 students. Entry to university is highly prized. As in the United Kingdom, some universities are accorded higher prestige than others and entry to these is more competitive. Selection for entry is based on a range of measures such as high school achievement, interview and the results of the nationally set scholastic achievement tests. The MoE recognises that the intense competition for university places dominates and distorts education in much of the high school sector.

## ***Junior Colleges***

21 Junior colleges offer two-year or three-year vocational programmes designed to meet the growing demand for middle-level technicians. There are now 155 junior colleges, with almost

514,000 students. They provide specialised courses in agriculture, technology, nursing, fishing, commerce and business. The work of junior colleges corresponds closely with the higher level work undertaken by further education colleges in the United Kingdom.

## ***Open Universities***

22 The Korea National Open University provides a wide range of higher education opportunities for about 200,000 students who are almost all employed full time in industry and commerce. Its work corresponds to that of the Open University of the United Kingdom. Teaching is predominantly through radio, television and written correspondence.

23 Since 1982, 19 'universities of technology', also known as 'open universities', have been established which serve the needs of another 100,000 part-time students. These have the same entry requirements as formal universities, but priority is given to responsible persons from industrial organisations, holders of technical qualifications and graduates from vocational courses in academic high schools. Most students attend night classes. Some of these open universities employ teachers at industrial sites in order to increase the opportunities for workers to study. Courses are modular; students can accumulate the credits needed for graduation at a rate which suits their work and personal circumstances. The provision of these open universities corresponds to some of the advanced and higher level, part-time and off-site work of further education colleges in the United Kingdom.

## ***Vocational Training and Employment***

24 Since the 1980s, but before the recent economic downturn, industries in the Republic of Korea have experienced difficulties in recruiting enough skilled production workers to meet rising demand. This has been at a time of increasing unemployment amongst college graduates, particularly those with degrees in the

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social sciences and humanities. To improve the match between supply and demand for skilled people, various employment policies and training opportunities have been introduced. Those seeking new jobs, or who want to change their work, are provided with vocational guidance, including aptitude tests and counselling. Employment agencies, which are linked to a common computer database, help them find employment.

25 Vocational skills are nationally certificated through the ministry of labour. The basic competence qualification, appropriate to operatives, is the class 2 certificate which corresponds approximately to an NVQ level 2. After three years' experience and further tests, a class 1 certificate can be achieved and this gives national recognition of higher level skills. After a further six to 10 years' experience, 'master craftsman' status can be obtained. While this level of skill and experience may be recognised in the United Kingdom by some awarding and professional bodies, it does not carry the same nationally recognised status as in Korea. In the Pohang Iron and Steel Company steelworks, for example, master craftsmen are revered for their contribution to the company's success and receive special benefits. The Korea Manpower Agency provides public training under the guidance of the ministry of labour. The Korea Manpower Agency focuses on basic trades, new technology trades and advanced skills. The agency is attempting to simplify the grading system for national skills, and to integrate national skill certificates with educational diplomas within a common framework.

26 Employers offer in-house vocational training to meet their specific needs. Authorised training providers, with approval from the ministry of labour, also offer vocational training. In 1991, vocational training was provided for almost 26,000 people through public training and for over 67,000 through private trainers. Some Korean trade unions report a reluctance by employers to invest sufficiently in training skilled workers.

## ENTRY AND PROGRESSION

### Key Points

- a clear hierarchy in the status accorded to individual universities and colleges by parents and others
- the high levels of success enjoyed by graduates from selective specialist high schools in progressing to a university of their choice
- the failure of many students from general high schools to achieve their goal of entering university
- a preference for general high schools over vocational high schools because they provide the usual entry route to university
- the progression of a high proportion of students from vocational high schools and junior colleges to employment or company-based training

27 Students are admitted to high schools through a complex system in which use is made of general selection examinations and/or individual admission tests. Additional factors such as middle school records and achievements are also increasingly used as the basis for determining eligibility. Some districts allocate places to their schools by lottery to demonstrate that the process is equitable. The goal of the majority of middle school graduates is to enter a general high school as a stepping stone to university. Over 80 per cent of graduates from general high schools achieve either a university or college place. Some 4 per cent enter employment and around 14 per cent become unemployed, go to government training institutions, or their destinations are unknown (Ministry of Education, 1998).

28 High schools which specialise in science, art, languages or athletics are allowed to be highly selective in their entry requirements. The Seoul Science High School, for example, selects

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1 per cent from the top 3 per cent of middle school-leavers, based on school records. All the school's graduates, about 150 to 200 each year, progress to prestigious universities. About 90 per cent of the graduates from the Ewha Girls' Foreign Language High School enter university and almost all of them go to those universities considered the most prestigious.

29 Vocational high schools often take those students who have been rejected by general high schools or whose parents cannot afford general high school fees. This reflects the priority given to academic success and to progression to higher education rather than vocational training or employment. When the vocational high school at Pohang was set up in 1970, it was the first-choice school for parents, and all the early graduates gained employment at the Pohang Iron and Steel Company steelworks. A general high school, founded later, has now become first choice. Nearly all the graduates from the Seocho Electronics Technical High School progress directly into skilled work or training. Firms come to the school to recruit, encouraged by the four to six months of work experience which students undertake. However, managers said that only about 10 per cent of its recruitment comes from students who had made the school their first choice. Overall, 65 per cent of vocational high school graduates find employment and 29 per cent progress to higher education (though 47 per cent apply), mainly in junior colleges.

30 Entrance to junior colleges is increasingly competitive, though it remains largely a second choice to universities. Prospective students make multiple applications. The junior colleges visited received about 15 applications for each student recruited. Myong Ji Junior College receives about 42,000 applications annually, more than any other junior college, and from these it selects 3,000 students. The number of students at junior colleges is rising rapidly; in 1997, almost 40 per cent of the total number of recruits to higher education entered junior

colleges. Graduates leave junior colleges with a diploma and a number of ministry of labour class 2 certificates. The great majority are employed as skilled technicians and about 10 per cent transfer to the third year of university courses. Junior colleges monitor the progress of their students effectively after they have completed their courses and taken up jobs.

31 Industry-sponsored and government-funded training centres take a broad spectrum of students, many from poorer backgrounds. Main courses lead to ministry of labour class 2 certificates and graduates find employment as skilled operatives.

## FEATURES OF THE CURRICULUM

### Key Points

- substantial central control over the high school curriculum
- a high proportion of hours taught each week
- large numbers of employees on 'full-time evening' vocational courses
- a continuation of general, cultural and ethical education throughout high school and junior college
- rapid adjustments to the standard range of courses in the light of shifting priorities for the national economy
- a strategic view of lifelong learning

32 The MoE maintains considerable control over the curriculum in high schools. This has enabled it to make full use of the schools as instruments in meeting national strategic requirements. As part of its reform programme, the ministry is relaxing some of its restrictions on the curriculum and encouraging limited innovation and initiative. However, it continues to determine the minimum number of hours

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taught, their distribution between subjects, the content of each subject, and the textbooks used. At present, the minimum number of hours taught each week in high schools is set at 34 and the school year has 40 teaching weeks. A further education student in the United Kingdom may be designated full time on the basis of around half this number of hours taught.

33 In the institutions visited, patterns of attendance varied considerably. Students at the Seoul Science High School have 39 hours of teaching a week, which includes Saturday mornings. Students at the Ewha Girls' Foreign Language High School are expected to attend from 07.30 to 21.00 on weekdays and also on Saturday mornings: regular classes are held from 09.00 to 17.15; the remaining time is for non-academic activities such as sports, self-study under guidance and individual support. By contrast, Seocho Electronics Technical High School students attend from 09.00 to 15.30 on weekdays and on Saturday mornings.

34 The length of junior college courses is also prescribed by government. The majority are specified as two-year courses. Students attend during the day or as 'full-time evening students'. Evening students, who are generally employed during the day, take the same course as the day students, and at the same pace. They attend for four hours each evening, four or five evenings a week. At the Dongyang Technical College, the numbers on full-time day and full-time evening streams are comparable, an indication of the continuing dedication to education by Koreans who are already in full-time work. About 20 per cent more evening students than day students at Dongyang fail to complete their studies satisfactorily. Nationally, 30 per cent of junior college students attend in the evenings.

35 Schools and colleges, under the guidance of the MoE's reforms, are rapidly adapting to the foreseen future needs of the country. Managers often used phrases such as the 'cyber society' and 'globalisation' to indicate the influences guiding their thinking. The teaching and resources reflected these emerging priorities.

36 The junior colleges and training centres visited are also responding quickly to the education and training needs brought about by Korea's recent economic difficulties. Short retraining courses and evening courses requiring reduced hours of attendance are being introduced. Courses, mainly in the new technologies, are made available, sometimes free, to small businesses and others in the local community. The Seoul Teacher Training Centre, as part of its response to the changed economic climate, is to train teachers in economic awareness.

37 In all high schools, general education continues to be a major part of the curriculum. It occupies about half the taught hours. The emphasis is on Korean language and history, mathematics, science, English, social studies, physical education and the arts. Typically, Korean high school students study a dozen different subjects each year, with some limited specialisation in the last two years. This is in stark contrast to United Kingdom students who typically study three general certificate of education advanced level (GCE A level) subjects. The Korean high school curriculum is summarised in annex D. At junior college, general education continues to form about one-third of the curriculum. Both high schools and junior colleges promote extramural club and group activities, often in timetabled periods for all students.

38 The promotion of traditional Korean values and ethics is seen as increasingly important for a younger generation which is perceived by its elders to be less biddable and increasingly self-centred. The Seoul education authority runs training days for parents on how to bring up children. It also offers joint classes for parents and teachers in traditional manners. The Seoul Girls' Commercial High School has facilities for teaching calligraphy, folk-dancing and etiquette. The Dongyang Technical College emphasises the need for working within a code of ethics. The Hyundai Technical Training Institute teaches English, 'manners' and the 'spirit of Hyundai'

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alongside its training courses. Studies to promote and prepare for the country's reunification with its northern neighbour are common features in the curriculum.

39 Selected high school students attend one-week courses at study centres in each province aimed at promoting Korean ideals and culture. The programme at the Hwarang Educational Institute at Kyungju consists of a range of traditional Korean sports and activities such as: ink rubbing, archery and wrestling; discussion groups; periods for reflection and meditation; ceremonies and visits to historic sites; and the completion of the ancient Silla trail around Mount Nansam, originally performed by the *Hwarangs* (knights). Students are told, 'our past history will lead us down the road to a magnificent future'.

40 Students at vocational high schools work towards a number of ministry of labour class 2 certificates. Students at general high schools can opt to take a vocational route and may also achieve trade certificates. At the Dongsung High School, final-year students who are deemed unlikely to achieve university or junior college entrance are able to attend the local government training centre for four days a week. Parents were initially reluctant for their children to follow this route. In 1998, however, 50 of the 450 final-year students were attending such a centre. Technical subjects are usually taught through 50 per cent classroom work and 50 per cent practical. At the Kyungju Hotel School this split is rigid. Catering students spend the first six months of their one-year course on theory and the next six months on practical activities. Vocational courses in high schools and junior colleges include periods of work experience. The MoE plans to raise the proportion and quality of work experience, but the schools and colleges are finding it increasingly difficult to find satisfactory placements.

41 The government has made a strategic commitment to lifelong learning. It is promoting

vocational routes which offer flexible patterns of study and attendance, and is encouraging the construction of 'bridges' between educational pathways; for example, allowing junior college graduates to progress to the third year at university. A national system for banking educational credits is being developed under the auspices of the Korean Education Development Institute. The institute accredits educational institutions and ministry of labour vocational training centres. Qualifications from accredited institutions carry a specified number of 'credits' which individuals can register with the Korean Education Development Institute as a step towards gaining a higher qualification. The Institute of Adult and Continuing Education, at Myong Ji University, is one of the 61 institutions which had been accredited up to March 1998. Its students, some employed some unemployed, study for three hours each weekday evening to gain their degree. Students with junior college diplomas and with national skill qualifications are allowed some exemptions. The Korea National Open University provides degree-level and other training courses over an extensive range of subjects. There is no entrance examination. The university broadcasts for 16 hours a day, seven days a week, on its own cable television channel. It increasingly uses the internet and video-conferencing to reach its outlying centres. The university's student guidance centres offer advice on careers and employment.

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## TEACHING AND THE PROMOTION OF LEARNING

### Key Points

- large classes compared with those in the United Kingdom
- methods of teaching, especially of pupils below the age of 15, which rely heavily on rote learning and memorising factual information
- the high level of basic skills acquired by the age of 14
- effective teaching of large groups, assisted by appropriate resources
- teachers' imaginative use of modern technology
- regular in-course testing to assess achievement, rather than one-off national examinations
- strong commitment on the part of teachers and managers to their students' successful progress

42 Classes in the education system of the Republic of Korea are large by United Kingdom standards although they are now decreasing in size, partly owing to government strategy and partly because of the falling birthrate. The average size of a primary school class in 1970 was over 60, but by 1997 it had fallen to 36. High school classes have fallen from an average of 60 to 50 in the same period. The larger classes are sometimes split for practical activities such as language conversation or technology workshops. The average student-teacher ratio in high schools is about 22:1. In junior colleges it is even higher (Ministry of Education, 1998).

43 Pupils spend most of their time listening to their teachers and work is based on standard textbooks. Interaction between teachers and individual pupils is the exception rather than the rule. A high proportion of pupils' time is spent

memorising material. These methods have succeeded in producing high standards of achievement in some key areas. Korean students, to the age of 14, perform better than similarly aged students from any other industrialised nation in standardised international tests in mathematics and science (OECD, 1997). High schools and junior colleges do not have to devote high levels of resource to re-teaching what is part of the primary and middle school curriculum.

44 The government of the Republic of Korea is fully aware that there are limits to the skills which can be acquired through these methods of teaching and learning, and that their system does not sufficiently develop other abilities, such as independent thinking. More open styles of teaching and learning are now being promoted. From 1998, the Seoul Teacher Training Centre is introducing courses in open teaching styles for primary teachers. In most of the institutions visited, a wider range of learning opportunities is already in evidence. For example, the Myong Ji Junior College includes individual and group projects in the curriculum, and students at the Seoul Science High School are given individual research projects and make individual presentations to other members of their class.

45 Despite the large classes, students observed during the visit were attentive and their teachers skilful in maintaining their students' interest with questions, comments and the occasional humorous aside. The ability of teachers to cope effectively with large numbers sometimes owed much to the available resources. The institutions visited had invested generously in classroom equipment. Many classrooms were fitted with projection equipment for audio-video material. In IT rooms, the projection screens could show both the teacher's computer display and the keyboard. Extra video monitors at the sides of the rooms ensured that all students could see the displays clearly and the students sometimes worked in smaller groups around these monitors. All display screens were placed

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well above head height. The great majority of rooms fitted with computers had the monitors sunk into, or below, the bench surface so that each student could see, and be seen by, the teacher. Teachers often used a radio microphone so that they could be heard clearly as they moved around the class.

46 The teachers observed were embracing the technology available to them and using it imaginatively. In Pohang Technical High School, a group of 40 students were studying Korean culture. The teacher had trawled the internet for materials in order to create tailor-made CD-ROMs for the class to use. Students were working individually on the materials using good-quality multimedia workstations. In a class in the Seoul Girls' Commercial High School, students were enacting the functions of a simulated trading company. They used high-quality workstations to carry out their tasks, and made business-like sales presentations in English to students at other schools in Korea and in Japan, using video-conferencing facilities. A large well-equipped studio provided the base for two presenters at the Korea National Open University to teach the Chinese language to 150 students in five regional study centres connected by video-conferencing facilities. The teacher made a presentation, took questions from each study centre in turn, and then showed a video of a first meeting between a boy and girl. Students in the study centres watched the video attentively, following the script from their textbooks in preparation for the next activity.

47 School managers and teachers are strongly committed to the continuing progress of their students. They do not hold the students responsible for poor performance but re-examine the students' pattern of learning as a starting point for effective improvements. They are under considerable pressure from parents to ensure that their pupils succeed. The majority of parents of high school students pay for extra evening and weekend tuition from private tutors. With ministry support, however, schools

and colleges are increasingly seeking ways to deter parents from placing this extra pressure on students.

48 High school students do not sit a battery of national examinations at the end of their course as do general certificate of secondary education (GCSE) or GCE A level students. Their achievements are monitored instead by frequent testing, often monthly. The test results are included in the record of achievement which accompanies the high school or junior college diploma. Written tests are predominantly multiple-choice or short-answer. The vocational high schools and junior colleges have additional practical assessments. In the Seocho Electronics Technical High School, 70 per cent of the assessment of the vocational elements in the curriculum is through practical skill tests.

## SUPPORT FOR STUDENTS

### Key Points

- diverse entry routes to junior colleges
- strong parental support for students
- extreme pressures on high school students to succeed
- close contact between parents and school/college
- comprehensive tutorial and counselling arrangements
- welfare subsidies for poorer students
- additional payments for unemployed people attending retraining programmes

49 The prime aspiration of the great majority of high school students and their parents is that students gain entry to university, preferably to one of the most prestigious. Inevitably, many fail in this aim. Entry requirements for junior colleges are more flexible, as for further education colleges in the United Kingdom. A

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quota of between 30 and 50 per cent of new places at junior colleges are reserved for graduates of vocational high schools, and for 'entrusted workers', released from firms for their studies, who do not necessarily have high school diplomas. The Dongyang Technical College has five routes for entry to its mainstream courses; only one of these requires an entry examination. In all other instances, students are accepted on the basis of their past records. There are special entry arrangements for university BA graduates who are retraining, and for students from rural areas who receive preferential treatment in line with government policies for rural support. The main aim of graduates from junior colleges is to gain employment. Over 80 per cent of junior college graduates go directly to jobs, compared with 60 per cent of university graduates.

50 The great majority of high school and junior college students depend on parents to pay their fees and to maintain them whilst in education. Parents take a strong interest in their children's progress, often paying for extramural tuition. Most of the schools and colleges visited had arrangements to see and report to parents several times during the year. One high school did not send any written reports to parents because personal contact and contact by telephone was so frequent. In the Seoul Science High School, mothers voluntarily help with school meals. The level of contact between teachers and parents at the Jung-Jin Special School is impressive. The school aims to help parents understand their child's difficulties so that they can build on the school's work at home. Parents have individual meetings with teachers prior to their children's admission and they are involved in detailed discussion of their progress throughout the school programme. Parents meet with the president of the school, and seminars are held for groups of parents to discuss specific difficulties. Parents are encouraged to stay at the school all day and to assist the teachers. Several were seen at the school during the visit.

51 High schools recognise that their students are often working under stress. In some, the tutorial and counselling arrangements are similar to the best which exist in the United Kingdom. At the Dongsung High School, for example, each student belongs to a mixed-ability tutor group which meets regularly with a personal tutor to deal with general and personal issues. Trained counsellors provide additional support by offering individual interviews in confidential counselling rooms. A telephone counselling service is available at several booths on the campus for those who do not want a face-to-face interview. In most of the institutions visited, times to meet teachers for individual counselling were set aside for students who needed help. The religious schools had full-time chaplaincies to support the students. The government is concerned at an increase in bullying and violence on school premises.

52 Almost all high school students complete their three years of study and rates of absenteeism are extremely low. All the classes observed were highly disciplined and the 10-minute recreation periods at the end of each lesson were structured. Students wore uniforms in nearly all the institutions visited. Within this regime, students were cheerful and open in their relationship with others. Many of the institutions had residential accommodation for students. As in further education colleges in the United Kingdom, completion rates are an issue for the junior colleges. About one-fifth of junior college students fail to complete their course. High schools and junior colleges provide careers guidance to students completing their studies. Junior college students are in demand from industry, and many move into employment as a result of work experience or on the direct recommendation of the college.

53 Most of the institutions visited had special arrangements for students from poorer families. The Ewha Girls' Foreign Language High School offers annual scholarships. In 1997-98, for



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example, there were 34 of these. The training institutions also assist students from poorer backgrounds by means of fee remission and other benefits. Workers who are made redundant get a bonus in addition to their unemployment pay if they agree to attend an approved course. Trainees at the Hyundai Technical Training Institute receive a scholarship of about £80 a month, free meals and protective clothing. The fees at the Incheon Polytechnic Institute, which has a high proportion of poorer students, are heavily subsidised by the ministry of labour.

## EQUALITY OF OPPORTUNITY

### Key Points

- cultural and gender stereotyping evident both in the recruitment of students and in the composition of management teams
- considerable investment in provision for students with learning difficulties and/or disabilities

54 Government education publications state that all citizens have the right to receive 'equal education according to their needs'. From 1989, the school curriculum study council has been reviewing the curricula and screening textbooks in an attempt to eliminate prejudice on grounds of gender. In Korean society women still experience lower pay, status and job security. Their expectations are often low. The younger generation, however, increasingly accepts the concept of equality between men and women.

55 Almost 60 per cent of general high schools are single-sex schools. Junior colleges are co-educational. As in the United Kingdom, brochures describing co-educational institutions often contain photographs showing groups of mixed gender at work. Similarly, however, these photographs do not always represent the reality

of recruitment patterns, which still reflect a gender bias. In the Seocho Electronics Technical High School, for example, only 40 of the 1,289 students are female. At the Hyundai Technical Training Institute, virtually all the trainees in four of the departments are young men; in the information processing department nearly all the trainees are young women. At the Pohang Technical High School, which has residential accommodation, no female students are accepted. At the Kyungju Hotel School, western cooking courses were said to be for males only because of the 'physical demands' of this type of cooking. The proportions of female teachers in high schools and junior colleges are gradually rising and now stand at about 26 per cent and 32 per cent respectively. Almost all the senior managers met during the visit were male. (In contrast, the two senior inspectors in the FEFC's visiting group were women.)

56 There are separate institutions providing special education for pupils with learning difficulties and those with disabilities. These students may also be integrated with the general school system. The Jung-Jin Special School, for pupils with moderate learning difficulties, is on a large, modern campus on the outskirts of Seoul which has clearly benefited from substantial investment. The school has pupils of all ages, from kindergarten to high school. It has provided vocational training for some years and is supported in this by the government's Vocational Management Agency for the Disabled, which also helps to place students. The agency is now providing joint funding for sheltered workshops which are being built on the campus. Last year, 21 per cent of the school's graduates found employment and a further 28 per cent progressed to vocational training workshops. Teachers accompany students to their places of employment to maintain continuity of support. They also deliver special educational support to those students who attend general schools.

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## QUALITY ASSURANCE

### Key Points

- five-year strategic plans to match the nation's needs
- frequent inspection of high schools by the local authority
- competitive assessment of junior colleges by the Association of Junior Colleges
- extra funds for outstanding high schools and colleges

57 The MoE gathers extensive statistics relating to the Korean education system. It assiduously monitors, and reflects on, educational systems and educational developments throughout the world. Research findings from the Korean Education Development Institute and other organisations are used to inform its decisions. Five-year action plans have been successful in meeting many of the educational priorities of the country. The latest plan, for which enabling laws were passed in 1997, recognises a need for considerable in-depth reform to achieve further improvement.

58 The quality of management and teaching in schools is monitored by each education authority through a system of inspection. Inspectors visit schools several times a year. Sometimes the purpose of the visit is to audit the financial management of the school, sometimes to examine a specific aspect of the curriculum. Classroom observation by education authority inspectors, and by senior managers, is common. The inspector can discuss the classroom performance of a teacher with the head. Poor teachers are given additional training and support by senior managers. If much of the teaching at a school is found to be poor, a team of inspectors may be called in to prepare a corrective action plan.

Although teachers in publicly funded schools have security of tenure with an authority, they have four-year periods of employment with the schools and are often moved within the authority after this period. Heads can request that contracts are extended. Poorer teachers have a limited range of schools at which they will be accepted. The performance of each school is not publicly reported. Education authorities sometimes provide additional funds for schools which are performing particularly well. In the eyes of parents and students, the fundamental measure of the quality of a high school is its record in promoting the desired progression to prestigious universities.

59 Junior colleges do not have the same level of inspection. Classroom observation is rare. Inspectors mainly check performance statistics and financial information. The colleges each produce a self-assessment report based mainly on resource and performance data. An independent panel, drawn from the Association of Junior Colleges, assesses reports against common criteria on an annual basis, and publishes a junior college league table. For the first time last year, the seven top colleges in the table were rewarded with extra funding from the MoE. In the Dongyang Technical College, this performance bonus added about 5 per cent to their annual income. This college had also been evaluated by the ministry of information and graded outstanding for its communications courses. A national newspaper also publishes an assessment of all junior colleges. Training centres which are operated by the ministry of labour, or which depend on ministry of labour funds, are closely monitored by ministry inspectors. The inspection focuses mainly on financial and management matters.

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## RESOURCES

### *Staff*

#### **Key Points**

- teachers held in high esteem in the community
- low class contact hours compared with the United Kingdom
- the lack of industrial/commercial experience of many teachers of vocational subjects
- the valuable contributions to education made by those working in industry
- national concern over the quality of some tuition

60 Teachers are held in high esteem in Korea. Professors at prestigious universities are at the pinnacle of society, their position envied by even the most senior industrial managers. Salaries are paid at nationally agreed rates. Teachers' starting salaries are higher in Korea in comparison to GDP per capita than in almost all other OECD countries. After 15 years' experience, teachers' salaries rise higher in Korea in relation to starting salary (1.7 times), and are higher in comparison to GDP (three times), than in any other OECD country. The maximum salary paid to teachers in Korea is also higher than in any other OECD country (OECD, 1997).

61 The number of weekly teaching hours required of teachers varies considerably, but it is low by comparison with the United Kingdom. The average in the education institutions visited is about 18 hours a week. At one of the colleges it is 10 hours a week, with extra hours being paid as overtime. Teachers of technical subjects are less well supported by technicians than in United Kingdom institutions. Most teachers do their own preparation for laboratory and workshop periods. One institution with extensive IT facilities relies on teachers to

maintain the equipment. Administrative support is also lower. The in-course testing regime places a considerable administrative burden on teachers, who set as well as mark the frequent tests. Staff rooms in the institutions visited are superior to those commonly seen in United Kingdom colleges. They are spacious and have office furniture of a good professional standard. High-quality multimedia IT workstations are common in staff rooms.

62 High school teachers hold initial teaching qualifications from a higher education college or university. They must take additional tests to attain certification to teach in a particular local authority. If they move to another area, recertification is necessary. Government and education authorities face staffing problems, some of which are similar to those experienced by their counterparts in the United Kingdom. In high schools and junior colleges, teachers of vocational subjects often lack industrial or commercial experience and are being encouraged to take work experience placements in industry. To update and maintain teachers' expertise is an acknowledged difficulty, particularly when so many are employed by one authority for considerable periods of time. There are shortages of expertise in some subject areas; for example, much English teaching at elementary level is carried out by teachers not fully qualified in English. The MoE, schools and colleges are particularly concerned about the quality of the teachers who are employed privately by parents of high school students to provide tuition for university entrance examinations.

63 Industry and commerce play an important role in education and training by providing directly some of the expertise lacking in the teaching force. Industry representatives are members of the boards of local education authorities. Vocational high schools and junior colleges draw on industrial experts to supplement the work of their teachers. In some institutions it is common for teachers and

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specialists from business to exchange roles for short periods. The Dongyang Technical College employs 43 'concurrent professors' from industry. They help keep staff up to date and provide expertise in the new technologies. At the Hyundai Technical Training Institute, teachers of vocational subjects are often master craftsmen drawn from the Hyundai plants. The Seoul Teacher Training Centre maintains only a small permanent staff, but draws on professors from universities and other experts to deliver its extensive training programme. The continuing education work of the Institute of Adult and Continuing Education at Myong Ji University covers a wide range of cultural, social and professional subjects including IT, animation, security and fashion design courses. Classes are taught by skilled and experienced professionals who are not required to have a teaching qualification.

## *Equipment and Learning Materials*

### **Key Points**

- emphasis on high-quality computing, multimedia and internet facilities
- examples of outstanding specialist equipment in most institutions
- extensive broadcast educational material

64 The extent and quality of the IT equipment in the institutions visited are impressive. Teachers and students routinely use the most modern personal computer workstations in their studies. They use multimedia and internet facilities frequently. One college had eight IT workrooms, each of which contained 50 multimedia workstations with internet capability. IT is seen, with globalisation and more open markets, as one of the keys to the country's future. In junior colleges, the average ratio of students to 'modern IT workstations' is about 8:1, though in high schools the ratio is around 30:1 (Ministry of Education, 1998).

65 Some specialist teaching facilities, particularly science laboratories and mechanical engineering workshops, were unexceptional by United Kingdom standards, but many of the facilities were exemplary. The Jung-Jin Special School has a gymnasium, fitness room, swimming pool, water therapy facility, wood and metal assembly rooms, a sewing training room, cycles, a roller-skating area, karaoke room, and a temperature-controlled greenhouse donated by a commercial company. Several high schools and colleges visited have excellent multimedia language laboratories. The high schools operate their own broadcasting stations. The computer-aided design and manufacturing (CAD/M) workrooms at the Pohang Technical High School hold several industry-standard modern machines which can be programmed directly from advanced workstations in an adjacent room. The Pohang Iron and Steel Company Technical Training Centre has outstanding simulation facilities for industrial control. The Seoul Institute for Vocational Training in Advanced Technology, which trains non-Koreans in modern technologies, has IT and industrial training facilities of the highest quality.

66 Library resources in the schools and colleges visited are modest by United Kingdom standards. In the high schools, all subjects are taught through textbooks which have to be purchased by parents. Every textbook used must be approved by the MoE. About half of the total of 1,700 approved texts are produced by the ministry's textbook division, in a form designed to keep costs low. Teachers are supplied with standard visual aids, matched to the work contained in the textbooks. Broadcast material is used widely as a teaching resource. The Education Broadcasting Service produces education source materials for all ages and across an extensive spectrum of subjects. It broadcasts on a dedicated terrestrial television channel, two satellite television channels, and an FM radio channel, using its own programmes and other materials gathered worldwide. The Education Broadcasting Service programmes are

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in addition to those screened by Korea National Open University.

## *Accommodation*

### **Key Points**

- less emphasis on creating attractive front-of-house and circulation areas than in the United Kingdom
- students often clean the accommodation

67 The schools and colleges seen were generally purpose-built 20 to 30 years ago. Buildings are often functional in appearance internally and externally. Entrance hallways are stark by United Kingdom standards, though mirrors and grandfather clocks are a recurring feature, and many corridors and stairwells lack display. General-purpose classrooms often contain many rows of desks, little wall display, and bare flooring. Seoul Institute for Vocational Training in Advanced Technology, the Pohang Iron and Steel Company Technical Training Centre and Pohang University of Science and Technology have excellent new accommodation. The Jung-Jin Special School premises are a delight; the many displays of students' work, art works and plants provide a rich environment for learning. All the buildings seen were clean and tidy. Students' duties often include cleaning the classrooms, refectories and communal areas at the beginning or end of the day. A purposeful and harmonious atmosphere is evident in the colleges and schools. That is not to say that they are quiet and over-disciplined places. The young people show as much enthusiasm for noise and activity as do students in the United Kingdom.

## **GOVERNANCE AND MANAGEMENT**

### **Key Points**

- effective leadership
- clear vision and strategic planning
- good teamwork
- sense of pride and ownership among staff
- logical and orderly implementation of plans
- cohesive approach to implementing national education policies in schools and colleges
- focus on students' achievements and progression

68 The colleges and high schools visited are led effectively. Koreans pay much respect and attention to their leaders and put a high value on effective leadership. Some significant aspects of their education system, such as the training at the Hwarang Educational Institute, have the development of leadership skills as a central purpose. The staff display great loyalty to the organisations they work for, and to their leaders.

69 The style of management differs between colleges, much as it does in the United Kingdom. Many management practices are similar. Senior managers meet frequently and responsibilities are allocated as in United Kingdom colleges. Financial responsibility generally rests with the principal or president of the college. Most colleges hold regular staff meetings, which are used to evaluate progress and to plan for the future. At the Dongsung High School, there is a monthly formal meeting for all staff in the school. Staff with particular roles, such as personal tutors, also have their own regular meetings. A sense of good teamwork was evident in all the colleges and high schools visited.

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70 Strategic plans play an important role in the life of high schools and colleges. Mission statements succinctly summarise the ideals and ethics espoused by the college. Examples of these statements are produced in annex B. The sense of pride in the organisation is reinforced by the inclusion in most plans of a simple history of the college. Staff were supportive of, and obviously proud of, the mission of their organisation. Plans for the future direction of the school or college, and the measures by which the success of such plans will be assessed, are clearly expressed. Plans often contain simple and practical aims to be attained during the course of the year. There is a sense of logic and clarity of purpose to Korean planning and implementation which contrasts with some of the more elaborate plans devised by colleges in the United Kingdom. The Jung-Jin Special School has an educational aim 'to improve the health and basic daily living skills' of its students. The annual school plan states that this will be achieved by teaching its students to 'climb the mountain near the school' and 'cycle round the playground'. At the Dongsung High School, its first educational objective (annex B) is to be achieved this year partially by 'education on preserving nature'. Each class is charged with installing recycling collection points and using empty milk packs to make toilet paper.

71 Senior managers in schools and colleges are concerned mainly with students' experiences. The focus is very much on the quality of teaching and learning and the achievements of students. One of the prime performance indicators used by managers in high schools and colleges is student destinations.

72 Public sector high schools and colleges generally do not have governing bodies as these are understood in the United Kingdom. They are accountable to the local education authority and hold themselves responsible to the parents of their students. Private colleges have boards

of trustees or foundation boards. Some of these, for example the Myong Ji Junior College, have religious origins. In many cases, religious observance has ceased to play a major role in the day-to-day life of the college. Colleges and high schools follow closely the national policies for education.

## FUNDING

### Key Points

- historically lower level of direct public expenditure on education than for other industrialised nations
- higher level of direct private expenditure on education than in other industrialised nations
- planned increases in public expenditure through a special education surtax on selected consumer taxes
- high dependency on fee income by high schools and junior colleges
- important roles of the ministry of labour and private companies as training providers

73 The direct public expenditure on education at all levels has been low in comparison with most other industrialised nations, when expressed in actual cash terms per student or as a proportion of GDP. Direct private expenditure has been higher than in any other industrialised nation by the same measures. Of the total direct expenditure on education, in 1994, 60 per cent was from public funds and 40 per cent from private funds, mainly from private households in the form of fees. The gross expenditure on education compared with GDP has been of the same order as the majority of industrialised nations (OECD, 1997). As part of the present reforms, the government has set a target of raising public expenditure on education to 5 per cent of GDP by the end of 1998, which would place the country close to the mean for

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industrialised nations. The economic downturn has meant that this is unlikely to be achieved. Half of this 5 per cent was to be raised through a special education surtax levied on cigarette consumption, transport (including a special tax on petrol) and horse racing. The provincial education authorities are responsible for most aspects of education in their regions. On average, they receive about 85 per cent of their income from central government sources, though in Seoul this proportion is 66 per cent, and the rest from local taxes.

74 Both public and private high schools and junior colleges are highly dependent on fee income. The Dongyang Technical College received only 5 to 10 per cent of its income from public sources. Almost 30 per cent of junior colleges are totally dependent on fee income. The fees charged by institutions vary considerably with the nature of the institution and the year of the student. High school charges vary considerably but average about £300 a year for each student. Public junior colleges charge in the order of £900 a year for each student and private junior colleges around £1,500 a year per student. The average household's commitment to education fees represents about 10 per cent of total outgoings (Ministry of Education, 1998).

75 The ministry of labour, other government bodies and private companies play important roles as training providers. Incheon Polytechnic College is funded by the ministry of labour through the Korea Manpower Agency. It charges students a heavily subsidised fee of about £250 a year. The Kyungju Hotel School was opened in 1977 to support the development of the Pomun Lake tourist resort. Uniquely, it is partly funded by the ministry of culture. All large companies are required to pay a government training levy, or to provide training facilities in place of payment. The Hyundai Technical Training Institute is funded by Hyundai as part of its contribution to this levy. The various education and training institutions

visited at Pohang were founded, and are now funded by the Pohang Iron and Steel Company. They exemplify the profound influence that industry can exert on the education system.

## CURRENT REFORMS IN THE KOREAN EDUCATION SYSTEM

76 A programme of educational reform was set out by the MoE in 1996, following recommendations from a presidential commission on education reform which was set up in 1993. Many of the institutions visited had clearly embraced some of these reforms. The commission made a sharp and detailed analysis of the strengths and weaknesses of the education and training system as it was before 1996. The MoE accepted the report and instigated its programme for reform (Ministry of Education, 1997). Officials from the MoE said that the reform's objective is the 'creation of an edutopia'. They defined edutopia as an 'open learning society, where anybody for self-realisation can be educated at any time and anywhere'. The OECD policy review team describes the proposed reforms as 'bold, comprehensive and imaginative'.

77 The four pillars of the reforms are:

- learner-centred education
- diversification of the education system
- cyber education
- autonomy of education.

78 Among the weaknesses identified by the commission in 1995-96 were:

- large classes taught through rote learning and mechanistic problem-solving
- the role of schools as 'passers of knowledge' only
- the throttling of individuality through heavy central control over the curriculum and institutions
- the bias of high school education toward academic pursuits

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- the low esteem of vocational education and training
- the unrealistic goals set by parents and the undue stress on their children
- the bottleneck between high schools and entry to university
- a mismatch between graduate output and the needs of the country.
- research and development on vocational education and training
- dissemination of vocational education and training programmes
- research and development on certification systems
- evaluation and recognition of vocational education and training institutes and programmes.

79 The reforms resulting from the work of the commission are fundamental and far-reaching. They include:

- granting increased autonomy to local education authorities, schools and students
- allowing increased diversification of the curriculum to give more choice to schools and to students
- changing learning methods to nurture individual personality and creativity
- making education available, and encouraging further education, for people at any time of life and in any personal circumstances
- developing an open education system which allows transfer between types of schools and programmes
- facilitating the use of modern technology to provide flexibility in patterns of study and encourage independent learning
- improving the standard of teaching
- creating a more tolerable system of entry to higher education
- increasing progression opportunities for graduates from vocational high schools
- improving vocational training in general high schools
- improving the opportunities for education and training for those in work
- encouraging co-operation between schools and employers.

80 In 1997, the MoE established the Korea Research Institute for Vocational Education and Training. The institute is envisaged as a major force in the reformation of the vocational and training provision. It is charged with:

## CONCLUSIONS

81 In many respects, the post-16 education system in the Republic of Korea contrasts with the further education system in the United Kingdom: classes are large; basic skills are well-established before the age of 16; teachers and education are held in the highest regard; high school and college curricula retain considerable breadth and include consideration of ethics and values; there is strong central control over all aspects of the education system; there are no national examinations; fees are charged at both public and private institutions.

82 In other aspects, the Korean government is addressing similar issues to those in the United Kingdom. For example: lack of parity of esteem between academic and vocational routes; the need to produce more higher-level technicians to support developing industries; the promotion of lifelong learning; whether standards can be raised through differential funding.

83 The Republic has made outstanding progress in the last 40 years. A massively expanded and disciplined education system has achieved some of the world's highest post-16 participation and literacy rates and played a key role in the economic and social development of the country. The government has openly and rigorously reviewed the strengths and weaknesses of its current education system in the context of the perceived demands of the twenty-first century. It believes that the system must embrace new technology and prepare its people for a global economy. The reforms in



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progress aim to 'develop an educational process which balances all the needs of an evolving society'. The government's record of translating reviews into plans and then into actions suggests that the same energy and dynamics will be applied to solving the Republic's current economic difficulties, and that the education system will be an integral part of the solution.

# Annex A

## MEETINGS AND VISITS

### *Meetings and Briefings before the Visit*

Dr David Atterton, Chair, Guinness Mahon Holdings

Judith Cherry, Consultant and director of Korea Business Services, Department of Trade and Industry

Roger Frost, previously HMI, Office for Standards in Education

Anthony Parry, Managing director, Acheson Colloids

John Baxter, Headmaster, Wells Cathedral School

Korean students at Bradford and Ilkley Community College

Korean students at the United College of the Atlantic, South Wales

LG Electronics Ltd, Washington, Sunderland

LG Electronics, Newport, Wales

Ju-Choi Chung, City University

### *Meetings in the Republic of Korea*

Chairman Tae-Joon Park, United Liberal Democrats, founder and former chair of Pohang Iron and Steel Company

Minister Hai-Chan Lee, Minister of Education

Korean Education Development Institute

Kyungju Metropolitan Education Authority

Seoul Metropolitan Education Authority

### *Visits in the Republic of Korea*

Dongsung High School

Dongyang Technical College

Ewha Girls' Foreign Language High School

Hwarang Educational Institute

Hyundai Technical Training Institute

Inchon Polytechnic College

Institute of Adult and Continuing Education, Myong Ji University

Jung-Jin Special School

Korea National Open University

Kyungju Hotel School

Myong Ji Junior College

Pohang Iron and Steel Company

Pohang Iron and Steel Company Technical Training Centre

Pohang Technical High School

Pohang University of Science and Technology

Seocho Electronics Technical High School

Seoul Girls' Commercial High School

Seoul Science High School

Seoul Teacher Training Centre

Seoul Institute for Vocational Training in Advanced Technology

# Annex B

## NOTES ON AUTHORITIES AND INSTITUTIONS VISITED

### *Korean Education Development Institute*

The Korean Education Development Institute was founded in 1972 to undertake research on educational ideas, aims, content and methods, and to find solutions to problems facing the education system in the Republic of Korea. It is an independent, autonomous government-funded organisation. Among its many duties are:

- comprehensive research into Korean education
- development of curricula and textbooks
- development of teaching methods
- promotion of international exchanges for educational development.

### *Kyungju Metropolitan Education Authority*

Kyungju Metropolitan Education Authority is responsible for administering 155 schools (including kindergarten, elementary, middle, high and special schools). These institutions serve a population of almost 300,000. The basic tenet of the board is to educate its students 'to be proud Kyungju citizens'. It aims to promote and generate respect for 'a vital and vibrant school environment'. Policies, as stated, are focused on:

- cultivating good moral education
- educating towards a global community
- educating towards a patriotic, unified Korea.

### *Seoul Metropolitan Education Authority*

Seoul Metropolitan Education Authority administers 2,519 schools with about two million students and 71,531 teachers. It is by far the largest education authority in the

Republic of Korea, and often leads in education reforms. Its central goal is to provide 'education for self-reliant, creative, moral humans who will take the lead in the twenty-first century'.

### *Dongsung High School*

Dongsung High School is a privately funded Catholic general high school for boys. It was founded in 1907, originally as a primary school. There are currently about 1,500 students and 60 teachers. Fees are about £600 a year. Its educational objectives are stated as:

- to form citizens who will contribute to the democratic development of our nation and devote themselves to the ideal of the prosperity of the human race
- to form citizens who will embody the spirit of Catholicism and lead the future society of globalisation and information.

### *Dongyang Technical College*

Dongyang Technical College is a private, specialist engineering junior college in Seoul. It originated as the Dongyang Technical Institution in 1939. It provides two-year courses in a wide range of technical disciplines. In 1998, the college had about 2,300 full-time day students and about 2,700 full-time evening students. It is recognised by the MoE and the ministry of information and communication as an outstanding junior college. The college has partnership arrangements with colleges in the USA, New Zealand and Japan. Its objectives include providing:

- technical education in harmony with human personality
- responsible education for students' lifelong development
- up-to-date information for the knowledge and information society.

### *Ewha Girls' Foreign Language High School*

Ewha Girls' School was founded in 1886 as a Methodist school and in 1992 part of this school

# Annex B

became the Ewha Girls' Foreign Language High School. It is one of 16 language specialist high schools in Korea. This is the only girls' school, the rest are co-educational. It enrolls students from middle schools who are outstanding in academic achievement and have talent in foreign languages. In 1998, it had about 900 students and 45 teachers and instructors. Its stated educational goals are to:

- foster the love of liberty for the bright future of mankind within the Christian faith
- promote peace by developing an understanding of both the world and mankind in the global existence of coexistence and prosperity
- cherish creativity for the contribution of a new culture system on the globe blended with Korean tradition
- develop competence in major foreign languages to lead cross-cultural endeavours in the international arena
- cultivate the whole personality and humanity to become a worthwhile citizen.

## ***Hwarang Educational Institute***

*Hwarang* was a training system for the young knights of the great Silla period in Korean history which lasted from AD 668 to AD 936. The Hwarang Educational Institute, Kyungju, was established in 1973 to teach young Koreans the spirit of *Hwarang* and promotion of a whole-Korea identity is central to the purpose of the institute. It is based in an attractive rural setting in beautiful traditional Korean buildings. There are now 18 such institutes in Korea. Second-year students from the governing body of each high school are selected by the high school to attend a residential four-day training programme. Parents of students who have been expelled from school can also apply for their child to attend. The courses aim to develop in students:

- a democratic spirit
- self-discipline and respect for parents
- a spirit of co-operation.

## ***Hyundai Technical Training Institute***

Hyundai Technical Training Institute provides one-year and two-year vocational training in a range of disciplines for the construction industry. Entrants are generally male and under 30. Two-thirds have just completed military training and the others are direct from high school. Students graduate with ministry of labour trade certificates. Most find employment within Hyundai. The college is funded by Hyundai as a contribution to the government levy placed on large businesses to support training. Numbers at the institute have fluctuated considerably with demand; about 440 trainees graduated in 1996.

## ***Inchon Polytechnic College***

Inchon Polytechnic College, founded in 1968, provides technician and craftsman training over a wide range of engineering disciplines. The provision includes two-year ministry of labour class 1 and class 2 certificate courses; one-year full-time evening courses for master craftsmen; vocational instructor certificate and upgrading courses; special short courses funded by particular companies; and training courses for the unemployed. The college is funded by the ministry of labour through Korea Manpower Agency. It has about 650 full-time day students and 760 full-time evening students.

## ***Institute of Adult and Continuing Education, Myong Ji University***

The institute opened in 1985 and was one of the first to offer continuing education programmes. The college currently has 1,900 students. There are 250 staff, mostly part time. Continuing education courses run for six months, one year or two years. They include a wide range of cultural, social and professional courses including IT, animation, security and fashion design. The institute also delivers a nursery teachers education course and it has a developing degree programme obtained through credit accumulation.

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## ***Jung-Jin Special School***

Jung-Jin Special School was established in 1987 to provide education for children with moderate learning difficulties. It is situated on the outskirts of Seoul on a pleasant campus which is put to good use. Half of the students come by bus from areas up to an hour's travel away. There are two associated branch schools in other parts of Seoul. Facilities include buildings for nursery, primary education, secondary education, and vocational training. In 1998 the school had six pupils of kindergarten age, 192 of primary school age, 132 of middle school age, 124 of high school age and 14 in vocational training. The school has 70 specially trained teachers, five therapists and a nurse. The MoE has approved the school for providing placements for trainee teachers. Its stated goals are 'to raise students who participate in, adapt to, and contribute to society as:

- healthy persons
- independent persons
- moral persons
- rehabilitable persons'.

## ***Korea National Open University***

Korea National Open University was founded in 1972 to provide two-year junior college courses. The university now offers its own degrees, professional skill training, and in-service teacher training courses through its 18 departments. Formal classes operate at 29 provincial and city education centres. The university produces all its own broadcast and text materials, and trains its own technicians and engineers. There are currently 216,000 students, 40 per cent of whom are from Seoul. Around 60 per cent of students are under 30 years of age, 60 per cent are employed, and 6 per cent are registered unemployed. Korea National Open University's motto states: 'the country is our campus, people's homes are our classrooms, the nation is our students'.

## ***Kyungju Hotel School***

The Kyungju Hotel School was opened in 1977 as part of the Pomun Lake tourist resort development near Kyungju. It provides a supply of skilled workers for the resort and for other hotels in Korea. The school teaches hotel management, western culinary arts, and Korean culinary arts. It currently has about 250 students. It has a good reputation and students from vocational high schools all over Korea apply. It is unique in that it is funded by the Korean National Tourism Corporation which is part of the ministry of culture and tourism.

## ***Myong Ji Junior College***

This private junior college is on a large campus which also accommodates primary and secondary schools and the Myong Ji University. All these institutions are under the control of the Myong Ji Christian foundation. The college offers a wide range of vocational courses in engineering, industrial and business administration, humanities and social sciences, design and arts and physical recreation. It links with industry through industry co-operation committees, makes preferential admissions for industrial workers, sends students into work experience placements, and interchanges its teachers with industrial staff. It is recognised by the MoE as an outstanding junior college. It operates numerous exchange programmes with colleges overseas.

## ***Pohang Iron and Steel Company Technical Training Centre***

Pohang Iron and Steel Company was founded in 1968. At the time of the inspection, it was the second largest manufacturer of steel in the world. The Pohang plant is the company's original manufacturing base and it produces almost half the total output. It is renowned as 'the steel works in a park'; one fifth of the site is grass or trees. The company has always emphasised education and training. One of its stated aims is the enhancement of the quality of

# Annex B

life. It founded, and finances, schools at all levels in Pohang and a science and technology university. The Technical Training Centre's main business is producing trained operators for the Pohang plant. Entrants are from technical or general high schools, and the centre awards ministry of labour trade certificates. The centre also provides company-orientation programmes for graduate entrants, operative updating programmes, and corporate philosophy courses. It aims to imbue its trainees with: 'self-reliance; inventiveness; skill'.

## ***Pohang Technical High School***

Pohang Technical High School was set up in 1970 to support the Pohang Iron and Steel Company's need for technicians. The school now competes with a general high school for students, and most of the brightest prefer the general high school route. Students graduate with ministry of labour trade certificates. About half the 280 students are in dormitory accommodation.

## ***Pohang University of Science and Technology***

The university was founded by Pohang Iron and Steel Company in 1986. It emphasises research which the company believes provides a vital link between academia and industry. Half its students are postgraduates. Its parkland campus stands on a hillside overlooking the Pohang Iron and Steel Company works. Its facilities include Korea's only synchrotron radiation source. Many of the staff were recruited from professorships at universities in the USA. It is recognised as one of Korea's premier universities.

## ***Seocho Electronics Technical High School***

The school is a publicly funded vocational high school in Seoul which opened in 1994. In 1997, new entrants came from 104 different middle schools and competition for a place at the school is stiff. There are 60 teachers for almost 1,300

students. In addition to their high school diploma, students also obtain national skills certificates. In 1997-98, the school began to offer some community education classes which proved popular to local people. It is offering a more extensive range of wordprocessing and computing classes to the local community in 1998-99. The school has a wide range of specialist modern equipment to support its work.

## ***Seoul Girls' Commercial High School***

The school was established in 1926 and now has just under 2,000 students. It specialises in providing courses in business studies, administration and IT. Its graduates are keenly sought by commercial and other organisations in Seoul. It has very well-equipped business, IT and internet teaching equipment, broadcasting and multimedia facilities, a gymnasium and chapel. Rooms for teaching calligraphy, folk-dancing and etiquette provide students with facilities to learn traditional Korean culture. Its stated aims are to:

- provide a Christian education
- promote good manners and diligence
- strengthen the spirit of patriotism.

## ***Seoul Institute for Vocational Training in Advanced Technology***

Seoul Institute for Vocational Training in Advanced Technology was established by Korea Manpower Agency as the only institute in Korea to train people from other countries in aspects of technical and vocational education and training. It provides advanced training for managers, instructors, technicians and young skilled workers from 78 countries, predominantly in Asia, Africa and Latin America. The institute, formerly part of the Incheon Polytechnic College, is now housed in new, purpose-built accommodation. Facilities and training equipment are brand new and sophisticated. The new building will receive its first intake of students in April 1998.

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## ***Seoul Science High School***

The school was founded in 1989 to provide education in science, including the earth sciences. Its 540 students are selected from the top 3 per cent of middle school graduates in Seoul. The school is highly successful. It is a showcase institution set on an attractive and spacious site. There is dormitory accommodation for 360 students. Classes are restricted to 30 students and there are 54 teachers. The curriculum is enriched by a range of additional activities such as visits and visiting speakers. Teaching methods include the use of individual and small group project work, presentations and field trips. Students' projects are published every year in bound volumes. The school motto is: 'Supreme intelligence; righteous behaviour'.

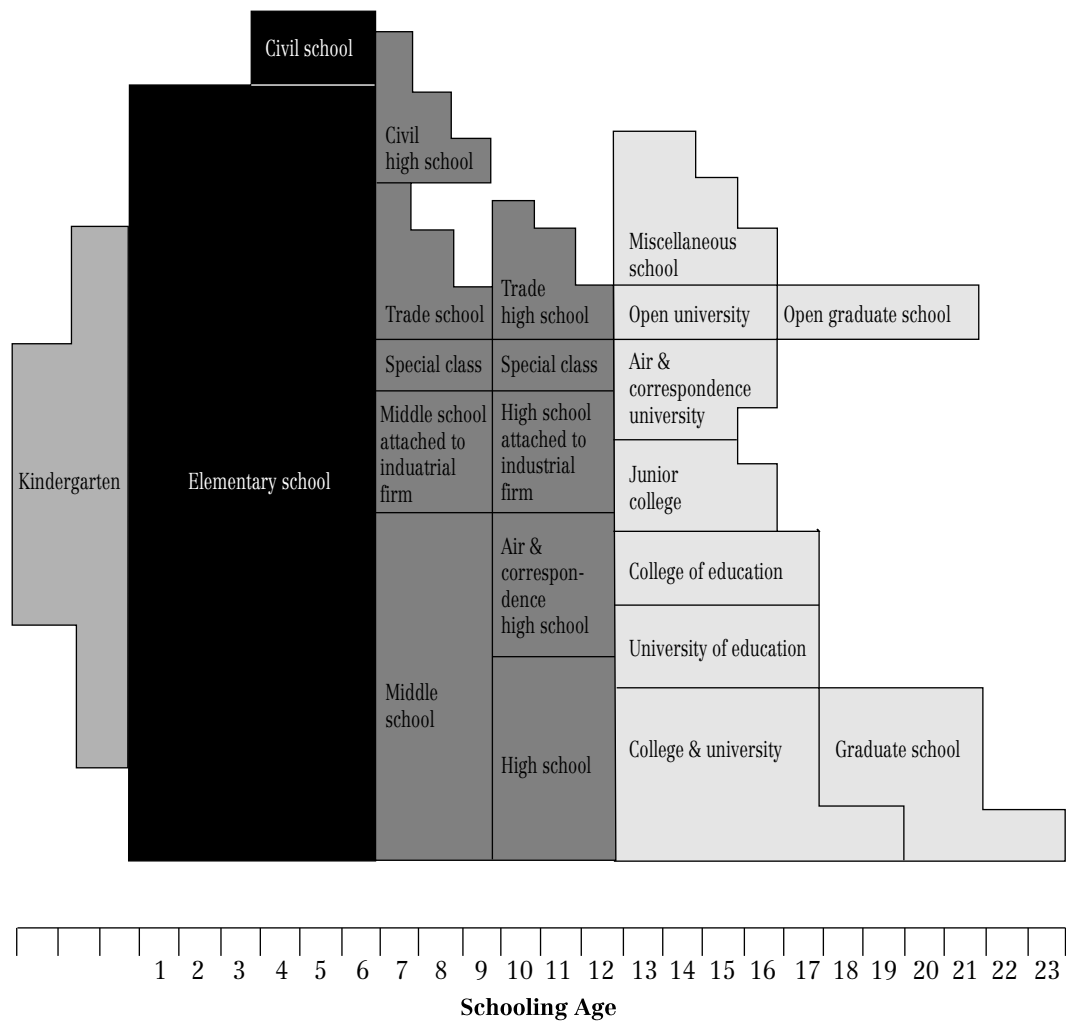
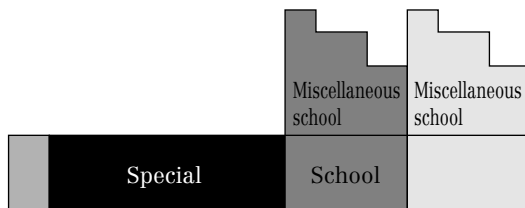
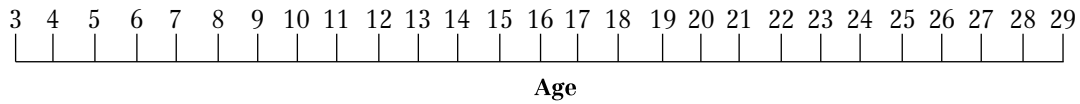
## ***Seoul Teacher Training Centre***

Seoul Teacher Training Centre provides in-service training and research for elementary, primary middle and high school teachers in the Seoul district. Its main programme covers 78 different courses, some taken as part of the advanced programme for promotion and other general ones for personal development. The courses are in three categories: general subjects (10 per cent) such as economics, environmental issues; vocational subjects (20 per cent); and professional subjects relating to teaching (70 per cent). The service is free to schools. Their clients are teachers and headteachers, especially from middle and high schools. The centre's motto states: 'teacher is the light of our nation; education is the power of our country'.

# Annex C

## EDUCATION SYSTEM IN THE REPUBLIC OF KOREA

Areas of blocks indicate approximate proportional enrolments



Source: Education in Korea, 1997-98, Ministry of Education



# Annex D

## HIGH SCHOOL CURRICULUM

### General Subjects

<i>Subject areas</i>	<i>Common compulsory courses</i>	<i>Compulsory courses for tracks*</i>	<i>Elective courses for tracks*</i>	
Ethics	Ethics (6)		Subjects excluded from the compulsory courses	
Korean Language	Korean Language (10)	Speech (4), Reading (4) Composition (6), Grammar (4) Literature (8)		
Chinese Characters & Classics		Chinese Characters & Classics I (6) Chinese Characters & Classics II (4)		
Mathematics	Common Mathematics (8)	Mathematics I (10) Mathematics II (10) Practical Mathematics (8)		
Social Studies	Common Social Studies (8) Korean History (6)	Politics (4), Economics (4) Society & Culture (4) World History (6) World Geography (6)		
Science	Common Science (8)	Physics I (4), Physics II (8) Chemistry I (4), Chemistry II (8) Biology I (4), Biology II (8) Earth Science I (4), Earth Science II (6)		
Physical Education	Physical Education I (8)	Physical Education II (6)		
Military Training		Military Training (6)		
Music	Music I (4)	Music II (4)		
Fine Arts	Fine Arts I (4)	Fine Arts II (4)		
Vocational Education & Home Economics		Technology (8) Home Economics (8) Agriculture (6), Industry (6). Commerce (6), Fishery (6). House Keeping (6) Information Industry (6) Career Vocation (6)		
Foreign Languages	Common English (8)	English I (8), English II (6) English Comprehension (6) English Conversation (6) Practical English (6) German I (6), German II (6) French I (6), French II (6) Spanish I (6), Spanish II (6) Chinese I (6), Chinese II (6) Japanese I (6), Japanese II (6) Russian I (6), Russian II (6)		
Free Optionals				Philosophy Logic Psychology Education Life Economy Religion Environmental Science Others
<b>Total Units</b>	<b>70</b>	<b>106</b>		<b>12</b>
Extracurricular activities	Classroom activities. Club activities } (12) Group Activities (4)			

**Notes:** \*The academic high school aiming at general education may establish tracks such as humanities and social science track, natural science track, vocational track, and other tracks, if demanded in the second year and above, in order to provide links between the course and a student's future career. Transfer to vocational track is permitted even in grade 3.

Figures in parentheses are the number of units to be completed. One unit equals the amount of school learning undertaken by a 50 minute instruction a week for one semester (equivalent to 17 weeks).

Only general subjects are listed to maintain simplicity.

Source: Education in Korea, 1997-98, Ministry of Education.

# Annex E

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