

REVIEWS OF  
NATIONAL  
POLICIES  
FOR  
EDUCATION



KOREA

# REVIEWS OF NATIONAL POLICIES FOR EDUCATION

## **KOREA**

## **ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT**

Pursuant to Article 1 of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

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## FOREWORD

In April 1994, Korea requested that the OECD review its education policy. The request was framed in the context of the work of the Commission on Educational Reform which was set up in February 1994 by President Kim Young Sam. The Commission advises the President on the whole range of educational policies and through its consultation aims to create a national consensus on long-term educational developments in Korea. It also superintends the introduction of the education reforms that result from its proposals.

The four themes picked out by the examiners to be at the heart of the reform proposals are:

- Lifelong learning for Koreans and the extent to which the reformed system will provide access to educational and training opportunities throughout the full span of an individual's life.
- The quality of learning, at all levels, for children, young people, and adults; the professionalism of the teaching profession; and the range and effectiveness of the resources available to learners and teachers.
- The provision for research and development and the availability of knowledge and information necessary for the effective performance of the reformed education and training system, and its accessibility to teachers, administrators, students, parents and members of the general public.
- The inner dynamics of a reformed, decentralised, national system, and the effectiveness of the processes, mechanisms, and resources that will be available to decision-makers at all levels, so that they can play the parts assigned to them in the pursuit of agreed objectives.

The OECD examiners were Mr. William Renwick (New Zealand), Rapporteur, Mr. Torben Kornbeck Rasmussen (Denmark), Mr. David Stern (United States) and Mr. Abrar Hasan (OECD Secretariat)

This volume is published on the responsibility of the Secretary-General of the OECD.

# TABLE OF CONTENTS

|                                                    |   |
|----------------------------------------------------|---|
| The OECD Examiners and the Korean Delegation ..... | 9 |
|----------------------------------------------------|---|

## *Part One*

### **BACKGROUND REPORT PREPARED BY THE KOREAN AUTHORITIES**

|                                                                              |    |
|------------------------------------------------------------------------------|----|
| <i>Chapter 1. Overview of the Korean Education System</i> .....              | 13 |
| Goals of education .....                                                     | 13 |
| Education system .....                                                       | 13 |
| Educational administration and financing .....                               | 20 |
| Development of Korean education .....                                        | 22 |
| <i>Chapter 2. Basic Education</i> .....                                      | 29 |
| Opportunities for early childhood education .....                            | 29 |
| Relevance of school education .....                                          | 30 |
| Diversity of school education .....                                          | 32 |
| Reform of teaching methods .....                                             | 34 |
| Student and school evaluation for the enhancement of education quality ..... | 36 |
| Professionalism and working condition of teachers .....                      | 37 |
| Demands for special education .....                                          | 38 |
| Educational administration and financing .....                               | 40 |
| <i>Chapter 3. Higher Education</i> .....                                     | 45 |
| Diversification of higher education system .....                             | 46 |
| Student enrolment quota system .....                                         | 48 |
| University admission and entrance examination .....                          | 49 |
| University accreditation system .....                                        | 50 |
| Governance of higher education .....                                         | 50 |
| Financing of higher education .....                                          | 51 |
| <i>Chapter 4. Vocational and Technical Education and Training</i> .....      | 53 |
| The system of manpower demand and supply .....                               | 53 |
| Quality of vocational and technical education and training .....             | 55 |

|                                                                                    |           |
|------------------------------------------------------------------------------------|-----------|
| Linkages in vocational and technical education and training . . . . .              | 58        |
| Partnership between school and industry . . . . .                                  | 59        |
| <b>Chapter 5. Lifelong Learning: Adult and Continuing Education . . . . .</b>      | <b>63</b> |
| New awareness of lifelong learning society . . . . .                               | 63        |
| Lifelong education opportunities . . . . .                                         | 64        |
| Lifelong education programmes . . . . .                                            | 65        |
| Lifelong education specialist . . . . .                                            | 66        |
| Distance lifelong education . . . . .                                              | 66        |
| Accreditation in lifelong education . . . . .                                      | 67        |
| <b>Chapter 6. Future Prospects: Korean Education in the 21st Century . . . . .</b> | <b>69</b> |
| Directions of education reform . . . . .                                           | 69        |
| Education in the 21st century . . . . .                                            | 70        |
| <b>Annex: Background Tables . . . . .</b>                                          | <b>79</b> |

*Part Two*  
**EXAMINERS' REPORT**

|                                                               |            |
|---------------------------------------------------------------|------------|
| Introduction . . . . .                                        | 87         |
| <b>Chapter 1. Korea: Past, Present, and Future . . . . .</b>  | <b>89</b>  |
| The historical background . . . . .                           | 89         |
| Kings and scholar-officials . . . . .                         | 90         |
| Times of tranquillity, times of trouble . . . . .             | 91         |
| Subjection, wars, partition . . . . .                         | 91         |
| Reconstruction and development . . . . .                      | 95         |
| Agriculture . . . . .                                         | 96         |
| Manufacturing . . . . .                                       | 96         |
| Economic liberalisation . . . . .                             | 97         |
| The labour market . . . . .                                   | 98         |
| The public sector . . . . .                                   | 99         |
| Education and training . . . . .                              | 100        |
| Preparing for the future . . . . .                            | 102        |
| <b>Chapter 2. Lifelong Learning in Korea . . . . .</b>        | <b>105</b> |
| Creating an educational platform . . . . .                    | 110        |
| The early childhood years . . . . .                           | 111        |
| Primary education . . . . .                                   | 112        |
| Middle and high school years . . . . .                        | 113        |
| New system of university entrance examination . . . . .       | 115        |
| Shifting vocational education to tertiary education . . . . . | 116        |

|                                                                             |     |
|-----------------------------------------------------------------------------|-----|
| The link between learning and the workplace .....                           | 119 |
| New opportunities for adult learning .....                                  | 121 |
| Learning opportunities through open universities .....                      | 122 |
| Credit bank proposal .....                                                  | 123 |
| <b>Chapter 3. The Quest for Quality</b> .....                               | 125 |
| Cultural continuity and change .....                                        | 126 |
| Contested educational values? .....                                         | 127 |
| Constraints on qualitative improvement .....                                | 129 |
| Reforming teacher education .....                                           | 136 |
| Reforming university education .....                                        | 138 |
| The institutional framework .....                                           | 141 |
| The lack of research .....                                                  | 142 |
| University-enterprise co-operation .....                                    | 143 |
| Teaching methods and university educational content .....                   | 144 |
| Teachers, students and institutions .....                                   | 145 |
| Mobility and internationalisation .....                                     | 149 |
| Opportunities for open learning .....                                       | 149 |
| <b>Chapter 4. Knowledge and Information in a New Education System</b> ..... | 153 |
| Knowledge and information .....                                             | 154 |
| Information for a new education system .....                                | 154 |
| “Koreanised” knowledge .....                                                | 156 |
| Korean values and psychology .....                                          | 157 |
| School improvement/School effectiveness .....                               | 158 |
| Knowledge and know-how for open learning .....                              | 160 |
| Broadening the knowledge base .....                                         | 163 |
| <b>Chapter 5. The Dynamics of New Korean Education</b> .....                | 167 |
| The role of central agencies .....                                          | 169 |
| A national multi-media centre .....                                         | 172 |
| Vocational and technical education .....                                    | 174 |
| Deregulation .....                                                          | 174 |
| District and local administration .....                                     | 175 |
| The professionalism of teachers .....                                       | 178 |
| Freedom of association .....                                                | 180 |
| Evaluation of primary and secondary schools .....                           | 181 |
| Public and private costs .....                                              | 185 |
| Parental choice and public good .....                                       | 189 |
| <b>Chapter 6. Conclusions and Recommendations</b> .....                     | 193 |
| The quality of lifelong learning .....                                      | 194 |
| Quality control/Quality assurance .....                                     | 196 |

The teaching profession ..... 198

Education and training ..... 199

Information technology and education ..... 202

Broadening the knowledge base ..... 203

Evaluation of educational performance ..... 203

Parental choice and public good ..... 204

Bibliography ..... 206

## OECD EXAMINERS

|                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
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## KOREAN DELEGATION

### Ministry of Education

|                       |                                                                |
|-----------------------|----------------------------------------------------------------|
| Mr. Byung-Young AHN   | Minister of Education                                          |
| Mr. Young Tak LEE     | Vice-Minister of Education                                     |
| Mr. Young-Sool CHEONG | Assistant Minister for Primary and Secondary Education         |
| Mr. Oh-Hyun CHANG     | Assistant Minister for Higher Education                        |
| Mr. Sung-Ho KUM       | Director-General, Education Policy and Planning Bureau         |
| Mr. Sang-Hwan CHUNG   | Director-General, Lifelong Education Bureau                    |
| Mr. Sam-Young SUH     | Director-General, Educational Information Management<br>Bureau |
| Mr. Bum-Suk SUH       | Director-General, International Co-operation Bureau            |
| Mr. Sungmoo LEE       | Director, Local Education Support Division                     |
| Mr. Kyoung-Hwai KIM   | Director, Planning and Budget Division                         |

### Presidential Secretariat

|                     |                       |
|---------------------|-----------------------|
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### Office of the Prime Minister

|                    |                                                                 |
|--------------------|-----------------------------------------------------------------|
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**The Korean Council for University Education**

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Education

*Part One*

**BACKGROUND REPORT PREPARED  
BY THE KOREAN AUTHORITIES**

## **OVERVIEW OF THE KOREAN EDUCATION SYSTEM**

### **GOALS OF EDUCATION**

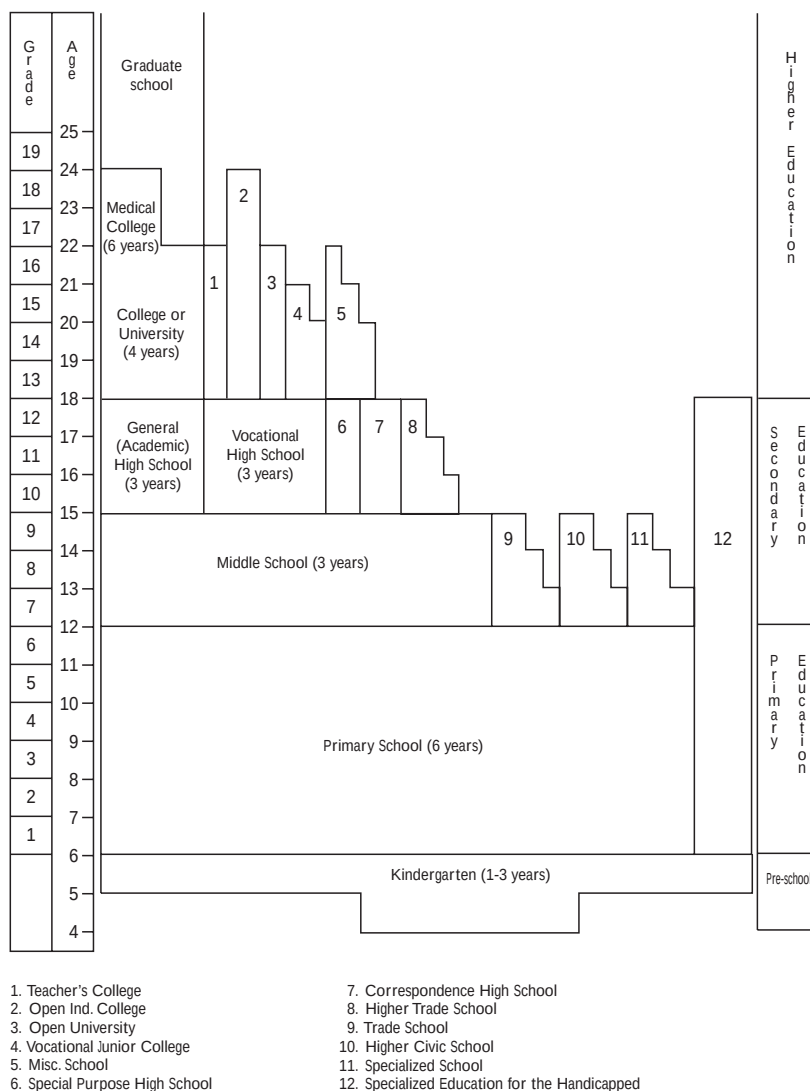
The Education Law enacted in 1949 adopted the slogan of “Hongik Ingan”, or “broadly beneficial to all human-beings” as the ideal of Korean education, and it has remained the national ideal ever since. Article 1 of the Education Law stipulates that the goals of education are to teach how to live independently, to foster the attitudes compatible with democratic citizenship, and to encourage living in harmony with others.

To this end, the Education Law provides that educational policy must embody the following objectives:

- to develop knowledge and attitudes necessary for sound growth and development of body and soul and to acquire courage and perseverance;
- to promote patriotism and affection for others for the continuance and development of national independence as well as world peace;
- to preserve and develop national culture;
- to cultivate a spirit of quest for truth and an ability of scientific thinking in order to help individuals lead creative and rational lives;
- to love freedom, to observe a sense of responsibility and to live harmoniously in society;
- to appreciate arts and nature;
- to work diligently, to learn to be thrifty, honest and responsible, and to endeavour to become productive workers and wise consumers who lead a healthy economic life.

### **EDUCATION SYSTEM**

The current school system of Korea was established by the Education Law enacted in 1949 (see Figure 1). The school system is a linear one of 6-3-3-4, consisting of six years of primary school, three years of middle school, three years

◆ Figure 1. *The Korean education system*

of senior high school and four years of college or university. Though kindergarten is not a part of this system, there is a growing demand to include it in formal education.

### **Basic education**

Kindergarten offers diverse programmes to children of three to five years of age and the curriculum covers physical, social, expressive, linguistic and inquisitive activities. Standard instructional time per day is three hours, but in reality, kindergartens tend to offer classes for four or more hours everyday throughout 180 school days a year.

Kindergarten education is largely carried out by private institutes or those affiliated to public primary schools. Parents are expected to pay all of the costs for kindergarten education. At present the opportunity for kindergarten education is not yet universal. Children are admitted to the kindergartens in their residential areas on the basis of parents' application.

Primary education is free and compulsory. At the age of six, children receive a notification of admission to a school in their residential area. Since the late 1960s, the primary school enrolment rate has reached 100 per cent. Primary education has been free since 1979. Once children enter primary schools, they automatically advance to the next upper grade each year.

Middle school education is compulsory and partly free. Here "partly" means that only those students in rural areas receive the full benefit of free education. Primary school graduates are assigned through random raffling to schools in their residential area. This random assignment system is applied to both public and private schools. The middle school enrolment rate reached 99.9 per cent in 1994. This high rate is attributed to the policy of no entrance examination adopted in 1969.

Middle school graduates have two options of academic general high schools or vocational/technical ones. Those students who are admitted to a vocational and technical high school cannot transfer to an academic high school. As of 1995, the students of general high schools occupied 62.4 per cent of the total enrolment, while those in vocational high schools took up 37.6 per cent. In 1995, 96.5 per cent of middle school graduates went to high schools.

The admission procedure to high schools in "equalised" areas are as follows. Using a random assignment method, middle school graduates are assigned to academic public and private high schools. After the screening for vocational and technical high schools is completed, middle school graduates who opt for academic high schools submit an application through their schools to the Office of Education. Following an examination by the local office of education, computers assign students to different high schools through a random raffling.

In “non-equalised” areas, students directly apply to high schools they wish to enter. Subsequently high schools decide which applicants are to be admitted, according to pre-established selection criteria.

Among academic high schools, some high schools that are established for special ends, such as science, arts, foreign languages, etc., select their students through different screening procedure. They are allowed to select their students before the screening for vocational and technical high schools begins.

The National Curriculum in Korea is developed and implemented by the MOE. The Enforcement Ordinances of the Education Law specifies courses to be offered at each level of formal education. The National Curriculum provides general guidelines for developing educational programmes, textbooks and materials which are subject to revisions every six to ten years. The Sixth National Curriculum introduced in 1995 is now in effect.

The textbooks compiled on the basis of the curriculum are classified into three types. The first is the government-unified textbook for which the MOE holds copyright. Commercial textbooks authorised by the MOE are the second type. The third type is those requested by school principals and approved by the Minister of Education or Superintendents in Municipal and Provincial Board of Education.

## **Higher education**

Higher education institutions in Korea fall into five categories: four-year colleges and universities offering bachelor's degrees including Korea Air and Correspondence University (KACU); teachers' colleges; vocational junior colleges; polytechnics; and miscellaneous schools. Brief information on each on these institutions follows:

- **Colleges and Universities:** There are 132 four-year colleges and universities that offer programmes leading to a bachelor's degree. However, schools of medicine, oriental medicine and dentistry are for six years. One credit requires one hour of class per week in a semester while one credit of laboratory work requires two hours. In general, the maximum of 24 credits can be earned within a semester. Minimum of 140 credits are required for graduation with a bachelor's degree. Four-year colleges and universities may have graduate schools in three categories depending upon their functions and goals: professional, general and open graduate schools.
- **Teachers' Colleges:** There are eleven national teachers' colleges in Korea that train primary school teachers. They are located in provinces. Students receive a bachelor's degree and a teaching certificate for primary schools. Registration and tuition fees are waived by the government. Upon gradua-

tion, they have an obligation to teach for at least four years in primary schools.

- **Vocational Junior Colleges:** There are 145 vocational junior colleges. They enrol approximately 22 per cent of students in higher education. The most popular fields are engineering, technology and nursing.
- **Polytechnics (Open Industrial Universities):** Polytechnics provide higher education for working youths and adults who lacked opportunities for higher education. There are 18 polytechnics at present.
- **Miscellaneous Schools:** The category of miscellaneous schools in higher education was established to provide learning opportunities in disciplines that usually do not fit in regular colleges and universities. In general, these schools are much smaller than other institutions. Among 22 miscellaneous schools, which are predominantly seminaries or institutes, 18 offer undergraduate courses and four, junior college courses.

### Vocational/technical education and training

Korean industrial manpower is educated and trained under diverse vocational education and training systems, as shown in Table 1. The vocational/technical education and training system in Korea consists of in-school education and out-of-school training. The jurisdiction of vocational and technical education is shared by two government agencies: the MOE is responsible for vocational high schools, vocational junior colleges, polytechnics (open industrial universities) and

Table 1. **Vocational and technical education in Korea**

| Ministry of Education                 | Ministry of Labour                                                                                                | Industrial firms                      | Private institutions |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------|
| – Graduate schools                    |                                                                                                                   | – In-plant graduate schools           |                      |
| – Polytechnics                        | – Korea Institute of Technology and Ed.                                                                           | – In-plant universities               |                      |
| – Vocational junior colleges          | – Technical colleges                                                                                              | – In-plant junior vocational colleges | – Special programs   |
| – General and vocational high schools | – Vocational training institutes <ul style="list-style-type: none"> <li>• public</li> <li>• authorized</li> </ul> |                                       | – General programs   |
| Middle schools                        |                                                                                                                   |                                       |                      |
| Primary schools                       |                                                                                                                   |                                       |                      |

Source: Ministry of Education/KEDI (1996), *The Korean Education System, Draft Background Report*

engineering colleges; the Ministry of Labour (MOL) for vocational training institutes, technical colleges and the Korea Institute of Technology and Education, industry-initiated training programmes.

### **Lifelong education: adult and continuing education**

Several types of adult and continuing education are currently implemented in Korea. The first is university-affiliated adult and continuing education. Many universities and colleges offer continuing education programmes for non-traditional adult students under the slogan of “life-long learning from the cradle to the grave”. The second type is school-based adult and continuing education. In the 1980s, the government encouraged some schools to expand their programmes for and share their educational resources with the community. Most schools operate weekly, bi-weekly, or monthly programmes such as “Classes for Mothers” and “Classes for Senior Citizens”. The third type is proprietary learning institutions. There are about 63 000 private institutes owned by proprietors, and the number continues to increase. These institutes are divided into various groups according to their fields: humanities (liberal arts and sciences), foreign languages, technical skills, management skills, accounting, fine arts (painting), and music. The fourth type is in-service training. There are various in-service training programmes for civil servants and industry workers. The human resource development for civil servants has been reinforced recently. In-service training programmes for civil servants are provided by 46 professional institutes at the national level. The fifth type is adult and continuing education provided by Non-Governmental Organisations (NGOs). A large number of NGOs are fully engaged in adult and continuing education. Both on a nation-wide scale and at local level have there been a number of voluntary non-government organisations and programmes. The sixth type is adult education through mass media. Newspapers, magazines, radio, television, video, films, and computers are different forms of media used daily for communication and adult education. Since the establishment of the more liberal and democratic Sixth Republic in 1988, the public responsibility of the press has been emphasized. The role of the press in adult education has been expanded. Many daily newspapers have increased the number of pages that provide a variety of information, while opening centres for lifelong learning. The Educational Broadcasting System (EBS) was founded in 1990 to support school education and expand the opportunity for adult and continuing education. Recently, some cable TV stations began service in lifelong education. The last type is adult and continuing education by cultural institutions. Facilities often used for adult education are libraries, local community centres, art galleries, exhibition halls, cultural centres, Catholic churches, social welfare organisations, different centres for the youth, women, the elderly or workers.

## Teacher education and in-service training

Kindergarten teachers are trained at colleges, vocational junior colleges, and the Korea National Open University. Vocational junior colleges train most of them.

Primary school teachers are trained at teachers' colleges, the Korean National University of Education (KNUE), Korea Air and Correspondence University, graduate schools of education, and departments of primary education within colleges of education. Most primary school teachers are trained at the 11 national teachers' colleges. Two-year teachers' colleges were upgraded to four-year colleges granting a bachelor's degrees from 1981 to 1984.

Secondary school teachers are trained at colleges of education (including KNUE), departments of education in general colleges and universities with teaching certificate programmes, and graduate schools of education. Graduates of both national and private colleges of education are required to take a public screening test monitored by the regional offices of education. Graduate schools of education were established to improve the expertise and quality of teachers. They offer day, night and seasonal classes to allow teachers to attend classes at their convenience.

Special education teachers for the handicapped are educated according to the specific grades they are expected to teach. School librarians must be graduates of colleges and universities with a major in library science. Nursing teachers must be graduates of four-year colleges or vocational junior colleges, have pertinent majors, and have obtained a teaching license. Technical training teachers must have minimum requirements of a vocational high school diploma and professional experience.

The curriculum of teachers' colleges that train prospective primary school teachers consists of general and speciality education. Each category is further divided into elective and required courses. General education consists of 65 per cent of requirements and 35 per cent of electives.

Graduation requirements for prospective secondary school teachers include the completion of a minimum of 140 credit hours of classes as prescribed by Article 120 of the Education Law. Most private universities require 140 credit hours as a graduation requirement, while national universities actually require 150 or more credit hours for graduation. The curriculum for college of education covers the three areas of general education, major courses and courses for the teaching profession.

In-service training has five categories: training for certificate upgrade; general training; professional job training; special training; and overseas training. Training for certificate upgrade is occasioned by a desire for a promotion. Training programmes are available to those who are eligible for certificates to become Grade 1 and 2 teachers, vice-principals, principals, librarians, and counsellors.

General training aims to establish a firm theoretical base for education and teaching by keeping teachers abreast of rapidly developing science and technology. Special training is offered by teacher training institutes at home and abroad, and is sponsored or arranged by the MOE. Overseas training is divided into observation tours and training in major subjects, including foreign languages, technology and industry, science, etc.

## **EDUCATIONAL ADMINISTRATION AND FINANCING**

### **Educational administration**

The educational administration system is based on and regulated by accordance with the Constitution and the Education Law. The Ministry of Education (MOE) is the central authority of educational administration, and the local Boards of Education and the superintendents of the Regional Offices of Education hold authority at the local level. The MOE is in charge of formal and lifelong education, setting academic standards, and formulating and implementing education policy. The Regional Office of Education is responsible for primary and middle school education as well as adult and continuing education.

The MOE consists of three offices and four bureaus: Planning and Management Office, Primary and Secondary Education Office, Higher Education Office, Education Policy Planning Bureau, Local Education Administration Bureau, Lifelong Administration Bureau, Lifelong Education Bureau, and Educational Information Management Bureau.

The recent reorganisation of the MOE in July, 1996, reflects the new visions and policy emphases set out in the Education Reform Proposal. The purpose of the reorganisation is three-fold: to enforce the implementation of the May 31 Education Reform Proposal through incorporating fragmentary policy scattered over different departments into a collective one; to expand the scope of policy-making and administration in education by emphasizing lifelong learning, diverse evaluation methods, and the benefits of students and learners; and to promote the use of information technology in education by creating a new bureau to be responsible for informatisation of schools and administrative agencies.

The MOE is in charge of both general and vocational/technical education. Besides the MOE, the Ministry of Finance and Economy (MOFE), the Ministry of Science and Technology (MOST), and the Ministry of Labour (MOL) are all involved in formulating and implementing policies related to human resource development, and vocational/technical education and training. The MOFE sets economic and social development as the first priority, and allocates government budget for education. The MOST implements policies related to scientific and technical development, and operates various research institutions located in the

Daeduck Science and Technology Research Complex. The MOL is in charge of policies related to training and enhancing the labour force.

Local administrative organisation comprises the offices of education at metropolitan cities, provinces, smaller cities and counties. As a legislative body, the board of education exist only at municipal and provincial levels. It makes important decisions on school education at local levels. The superintendent, elected by the board of education, is responsible for both the implementation of policies approved by the board of education and the tasks assigned by the MOE.

### **Financing education**

Public expenditure on education (PEE) is defined as the educational expenses used in legitimate, institutionalised procedure. PEE is supported by the central government, local governments, and school foundations. PEE supported by the central government is based on two major sources. One is the central government budget allocation by the laws on local educational finance, such as the Grant for Local Education and the Education Tax Transfer. The other is the revenue allocated through the government's budgeting process. The revenue allocated by the laws mentioned above is the revenue to be transferred from the MOE to the municipal and provincial offices of education in support for primary and secondary education.

The MOE budget is divided into general and special accounts. The concessionary budget for local education takes up most of the MOE funds. The largest financial resources of the MOE is tax revenue, mostly from education tax and internal taxes.

In 1996, the MOE budget was 24 per cent of the government's budget. The education budget increased in proportion to the growth of GNP, from 3 per cent of the GNP in 1991 to 4.01 per cent in 1996. The education budget can be divided by education level and by the nature of the expenses. The priority of the MOE spending is primary, middle, and high school education, higher education, adult and international education, as well as various other organisations under the MOE. As such, the lion's share of the budget is allotted to formal education including primary and secondary schools and tertiary educational institutions (see Table 2).

Currently, the funds for local education come from three sources: the central government, local government, and parents. Funding from the central government comprises the local education grant drawn from its regular account and mandatory spendings required by law; a special account that largely consists of the concessionary fund for local education coming from educational taxes; and various other subsidies from the central government. The local education grant goes toward paying teachers' salary in the compulsory school system and other regular or

Table 2. **Change in the MOE budget, 1990-97**

(billion won and %)

|                                | 1990    | 1991    | 1992    | 1993    | 1994    | 1995    | 1996    | 1997   |
|--------------------------------|---------|---------|---------|---------|---------|---------|---------|--------|
| Current GNP (A)                | 171 488 | 206 026 | 229 938 | 263 861 | 300 700 | 339 500 | 386 640 | –      |
| Gov. budget (B)                | 22 689  | 28 973  | 36 224  | 41 936  | 47 594  | 54 845  | 64 926  | 76 639 |
| Education (C)                  | 5 062   | 6 598   | 8 206   | 9 831   | 10 879  | 12 496  | 15 565  | 18 287 |
| Education/GNP (C/A)            | 3.0     | 3.2     | 3.6     | 3.7     | 3.6     | 3.7     | 4.0     | –      |
| Education/Gov.<br>budget (C/B) | 22.3    | 22.8    | 22.7    | 23.4    | 22.9    | 22.8    | 23.9    | 23.9   |

Source: Ministry of Education/KEDI (1996), *The Korean Education System, Draft Background Report*

special subsidies. The subsidy for local education is set by law as 11.8 per cent of the total internal tax revenue of the government. The concessionary local education fund, on the other hand, is collected from certain national and provincial taxes (*i.e.* security taxes, corporate taxes from insurers of financial institutions, supplementary consumer taxes at the national level, and local taxes on residence, property, land, car, and registration).

Local government provides financial support in the following forms:

- funds earmarked for educational purposes from the general account of the local government;
- funds allocated according to Article 11 of the Local Education Grant Act (100 per cent of teachers' salary for public secondary schools in Seoul and 50 per cent of salary in Pusan);
- 45 per cent of the tobacco tax revenues collected in Seoul and five other areas designated as special municipalities; and
- revenues from the properties owned by the municipal and provincial offices of education. In 1995, funding for local education amounted to 12 849.4 billion won, of which 83.1 per cent was provided by the central government, 9.5 per cent by the autonomous local government, and 7.4 per cent by parents.

## DEVELOPMENT OF KOREAN EDUCATION

### Educational development

Before modernisation, there were four kinds of educational institutions: Seongyunkwan, Sahak, Seowon, and Seodang which existed in almost every village and was equivalent to a primary school run by individuals. As there was no

public primary school, Seodang was responsible for basic education. As for middle schools, there was Sahak in Seoul, and Hyangkyo and Seowon in the country. Sahak was a Seongyunkwan-affiliated public school directly controlled by the government. Hyangkyo and Seowon were founded by local land owners and supervised by each provincial governor. As for higher education institutions, Seongyunkwan was founded and financed by the government. However, these schools were independent and not a part of a unified system.

### ***Foundation of democratic education (1945 to early 1960s)***

The foundation of the Korean education system was laid in 1945-49, with two goals in mind: building an independent nation and eradicating the legacy of colonial occupation. The new education system was formulated to allow the public wider access to educational opportunities at every level.

The government tried to establish a national education system based on the principles of liberty and democracy. The government also enacted various orders to create more schools, to set forth general guidelines, to hire and administer civic servants in education, and to fund national education. Moreover, the government developed school curricula and established a university accreditation system.

### ***Quantitative expansion in the 1960s***

The United Nations designated the 1960s as “the decade of development”, and Korea witnessed enormous economic progress during the decade. Education was the foundation of the huge national economic development, and therefore, educational development was a part of national development. The most outstanding feature of educational development was the quantitative expansion in the 1960s. The implementation of the six-year compulsory education plan enabled all children of applicable age to enrol in school, and the number of secondary school students tripled from previous years. With the universalisation of secondary education, the higher education population increased more rapidly than that of any other level of education. The government created in 1969 for the first time the Long-Term Comprehensive Education Development Plan which encompassed all aspects of education and aimed at reforming the education system.

### ***Educational reform in the 1970s***

The 1970s were characterised by fundamental reforms in politics, the economy, and education. In the education sector, reform movement were generated for the normalisation of primary and secondary education. The government

abolished entrance exams for middle schools and high schools in 1969 and 1974 respectively, changing education from examination-oriented into a true learning experience. A growing debate over the government control of higher education led to education reform, resulting in less government control. This decade also saw the diversification of higher education institutions. Junior colleges absorbed a significant share of tertiary education and their programmes were diversified to meet different industrial needs.

Rapid economic and social changes led to a new emphasis on life-long education and adult education. The opening of the Air and Correspondence College in 1972 was notable in that it helped to reduce the pressure for admission to colleges and universities. In 1974, Air and Correspondence High Schools were established.

To support educational reform and new policy formulation, the Korean Educational Development Institute (KEDI) was founded in 1972. The goal of KEDI was then to study new systems of education for the unique Korea situation and subsequently to produce various R&D activities in the field of education.

### ***Qualitative development in the 1980s***

Innovative efforts to modernise the educational system continued into the 1980s. The early years of the 5th Republic were characterised by various reform measures and regulations, but as a whole, the educational reform of this period aimed at qualitative improvement. Provisions to promote life-long education were included in the Constitution. Science education was to prepare youth for the era of ever changing science and technology.

At the very inception of the 5th Republic, the “July 30 Education Reform” (1980) was implemented. This banned private tutoring and abolished separate college entrance exams administered by individual universities. Furthermore, universities were mandated to admit 130 per cent of the normal quota of students and to fail the excess 30 per cent by the time of graduation.

In the middle of all these changes, the Presidential Commission for Education Reform (1985-87) was formed to prepare a national plan for education reform. The proposals include:

- changing the current school system to a 5-3-4-4 system plus kindergarten (K-12);
- allowing flexibility in the mandatory age for elementary school entrance according to the ability of each child;
- expanding free compulsory education up to the middle school level nation-wide;
- establishing and running job adaptation courses for high school graduates;

- offering vocational courses for high school graduates;
- allowing excellent students to skip a grade;
- expanding free education for handicapped to the high school level.

Not all of these proposals were implemented. Only some of them were adopted by the MOE after a series of revision.

### ***Reform for autonomy in 1990s***

Korean education in the 1990s emphasizes the preparation of the individual for the future, building on the 1980s goals of quality and autonomy in education. The MOE was restructured according to the new role definition. New laws for local autonomy were legislated in March, 1991, and district offices of education were inaugurated at the provincial level, setting a new benchmark in the democratisation and localisation of education. The Sixth National Curriculum was introduced in 1995 to give more autonomy to schools at municipal and provincial levels, so that the curricula would meet each school's individual needs.

Despite the education reform efforts by the former governments, the problems innate in Korean education still persist. Most of all, the current education system is too uniform and monotonous to accommodate the diverse needs and demands of schools and parents. School education is excessively geared toward preparation for college examination with the result being that memorisation of knowledge and excessive private tutoring are the rule rather than the exception. The result is that students are overburdened with study, while parents, largely due to inordinate tutoring expenses, are under enormous financial strain.

The present education system is not well suited for the information and globalisation age, where knowledge and information are key factors of productivity and teaching-learning often take place outside traditional schools. Against this backdrop, President Kim Young Sam commissioned a presidential committee to initiate education reform for the coming 21st century.

The Presidential Commission on Education Reform (PCER, 1994) proposed the “New Education System” which sought to create an open society of life-long education that provided lifelong access to education to everyone at anytime at any place. In order to establish the “New Education System”, the PCER proposed the following policy measures:

- diversification and specialisation of higher education;
- establishment of a school management committee at each public school;
- introduction of a new curriculum to develop humanistic characteristics and creativity;
- reform of the university entrance examination system;

- creation of new elementary and secondary education systems responsive to diverse needs of learners;
- adoption of a financing scheme that purports to reward better performance;
- improvement of teachers' competency and professionalism; and
- substantial augmentation of the education budget to up to 5 per cent of GNP by the year 1998.

The PCER also announced the second reform proposal on February 9, 1996, which focused mainly on the reform of vocational education. It proposed the following:

- establishment of a new vocational education system;
- curriculum reform of primary and secondary schools;
- introduction of new professional graduate schools in law, medicine and religion; and
- reorganisation of education laws and regulations. These proposals are now being vigorously implemented by the MOE.

## **Major characteristics of the development of Korean education**

### ***Quantitative to qualitative development***

Korean education has grown rapidly since the Liberation in 1945. The enrolment rate has drastically increased, and the numbers of schools, teachers, and facilities have increased accordingly. The number of primary schools, for example, has increased about three times; middle schools and high schools about 55 times; and universities over 140 times.

The expansion of Korean education contributed to the fulfilment of the strong educational desire of the people and the realisation of the principle of equality. It also contributed to lowering an illiteracy rate and providing well-trained manpower for industrialisation.

It has been argued, however, that the qualitative growth of education has failed to follow the quantitative growth due to the insufficient investment to education. Some important measures were initiated to accomplish a qualitative development: rearranging education content, improving teachers' working conditions, creating environments for independent studying, and promoting openness and autonomy in education (see Table 3).

Table 3. **Enrolment rates by school level**

| Year | Kindergarten | Elementary school | Middle school | High school | Higher education |
|------|--------------|-------------------|---------------|-------------|------------------|
| 1966 | 1.1          | 98.1              | 41.4          | 26.4        | —                |
| 1970 | 1.3          | 100.7             | 50.9          | 27.9        | 9.5              |
| 1975 | 1.7          | 105.0             | 71.6          | 40.8        | 9.5              |
| 1980 | 4.2          | 102.9             | 95.0          | 63.3        | 16.0             |
| 1985 | 18.9         | 100.4             | 100.0         | 79.5        | 35.6             |
| 1990 | 31.5         | 101.4             | 97.8          | 87.6        | 38.1             |
| 1995 | 42.0         | 98.7              | 100.6         | 89.9        | 54.6             |

Source: Ministry of Education/KEDI (1996), *The Korean Education System, Draft Background Report*.

### ***Strong zeal for education***

The strong zeal for education among Koreans cannot be matched anywhere else in the world. It is certainly true that the strong family structure and high respect for education are important factors and perhaps the most important driving force behind the rapid economic development of Korea.

The strong belief in education among Koreans can be attributed in a large part to the importance of credentials in the current society. Diplomas are regarded frequently as the most important criterion for evaluation in employment, marriage, and informal interpersonal relationships. This has created many problems in Korean education, such as aggravating competition, excessive private tutoring, reinforcing the view of education as a social ladder to wealth and fame (resulting in repetitive attempts at college entrance exams), frustration, increasing juvenile delinquency, and a high unemployment rate among the well-educated.

Thus, the Korean enthusiasm for education has both positive and negative effects. The most urgent task is to enhance the positive aspects while reducing the negative ones.

### ***Increasing educational expenditure***

The rapid quantitative growth of education led to the consistent expansion of educational expenditure. The cost per student in public education increased enormously, and the size of the education budget as a percentage of both the total government budget and the GNP has substantially increased since the 1950s. Expenses for private education also increased at a faster rate than those for public education. The rate of private expenditure to public expenditure increased from 48.6 per cent in 1977 to 108.4 per cent in 1990. This phenomenon shows that expenditure for private education has increased with the growth of income whereas this was not the case for public education.

***From centralisation to decentralisation***

One characteristic of the development of Korean education is that the administrative power has been gradually transferred from the national government to local governments and individual schools. Although the greater part of administrative tasks and power is still concentrated in the Ministry of Education, much has been transferred to local educational authorities.

The most important aspect of the decentralisation of administration can be seen in the self-governing system. After much trial and error since the Liberation, the government introduced autonomy at municipal and provincial levels in 1991, which allowed the local council to elect the superintendents.

Decentralisation of administration can be also found in the implementation of curriculum. The Sixth National Curriculum allows local educational authorities to select appropriate subjects and to decide the unit number of regular courses at high school level.

***Increasing role of the private sector***

Public education has experienced a shortage of financial resources caused by an increasing number of students. Limited government budget triggered the increase in private schools and the expansion of private lessons or tutoring.

The share of the private sector in education is thus very high. In the case of kindergartens, the enrolment rate at private kindergartens was 77.8 per cent of the total in 1994. The share of private colleges and universities at the tertiary level reached 81.9 per cent of the total enrolment as of 1995. The number of students who are taking computer, language, arts, and physical education at private institutions known as “Hagwon” has substantially increased.

This excessive privatisation of education indicates the need to expand public education, to encourage the participation of the private sector in education, and to distinguish clearly between the private and public sectors. In addition, strategies to facilitate the transfer of vast private expenditure to public education need to be developed.

## BASIC EDUCATION

### OPPORTUNITIES FOR EARLY CHILDHOOD EDUCATION

Although early childhood education in Korea has grown noticeably since the 1980s, the kindergarten enrolment rate is still low. The enrolment rate among five-year-old children was only 44.4 per cent in 1995. Many kindergarten-aged children are attending other various private tutoring institutions or day-care centres that are under the control of the Ministry of Health and Social Welfare.

The MOE has concentrated on building public kindergartens in rural areas while encouraging the private sector to establish kindergartens in big cities where a large number of kindergarten-aged children are concentrated. Accordingly, kindergarten education largely depends on private resources. The ratio between private and public kindergartens is 7:3.

The Presidential Commission on Education Reform (PCER, 1994) suggested that kindergarten education should be supported by public funds as much as possible. Recently, the MOE announced plans to raise the enrolment rate of five-year-old children up to 65 per cent by 1998, at a cost of 40 billion won. It is also considering, as a long-range scheme, the introduction of the voucher plan for children enrolled at private kindergartens.

The Infant and Child Care Act was revised in 1991 in response to a rapid increase in the number of Korean women entering the labour market and participating in volunteer work. The revised act initiated the establishment of comprehensive child care service arrangements with a priority for children of working mothers with low income. The arrangements include, *inter alia*, requiring all industrial firms with 500 or more female employees to establish at least one day care centre on its own premises or to subsidise for external child care expenses.

Under the Tax Exemption Act and the Income Tax Enforcement Decree revised in December 1991, child care service organisations receive indirect fiscal support. Furthermore, the revised executive order of the Construction Act loosened restrictions on the construction of child care and other public-interest facilities that spurred child care service. The government has been also providing direct subsidies toward the construction and operation of facilities as well as for personnel expenses, including the cost of training for child care service

organisations. The government plans to facilitate up to 60 per cent of the demand for child care service by 1997.

The PCER suggests that child care facilities, such as day care centres and in-family day care service, should be expanded to facilitate the utilisation of the female workforce. According to the Education Reform Proposals, the government will develop diverse educational materials and tools and supply them to kindergartens and day care centres.

## **RELEVANCE OF SCHOOL EDUCATION**

### **Activity-oriented humanity education**

Korean school education faces new challenges at the turn of the century. First, Korean education needs to make a greater effort to cultivate ethics and democratic citizenship in students. Since educational achievement has been the most important indicator of individual success in the Korean society, enthusiasm for education has been extremely high. A priority in entering prestigious universities has resulted in an examination-oriented education, often inducing self-centred individualism. Furthermore, rapid economic development and material abundance have led to a hedonistic, materialistic attitude on the part of many Koreans.

In order to solve these problems, the PCER proposed an activity-oriented humanist education. The primary goal of a humanist education through participation in social activities is to cultivate manners, respect for order, and democratic citizenship among students. The PCER suggested that the elements of a humanist education, such as morality, social skills and aesthetics, pervade all aspects of school education, including teaching, counselling, and extracurricular activities. The PCER also stated that a humanist education should be provided through a partnership between home and the educational institutions.

The MOE encourages primary schools to increase a “day without a school-bag” from one to two days a month. It is also considering reducing school days from six to five days a week when the business and government sectors adopt a five-work day policy in the near future. In addition, after-school extracurricular programmes were introduced in 1996 in primary, middle, and high schools, to develop self-directed learning and a well-rounded personality on the one hand, and to utilise school facilities and personnel on the other. The MOE plans to expand them after a careful evaluation of their results.

### **Education for creative and critical thinking**

The 21st century is expected to result in a society of information and globalisation, and the challenge of education is to help students develop creative and

critical thinking. Korean education has focused on a quick adoption of advanced knowledge and skills from developed countries. However, the period when Korea blindly mimicked the developed countries is over. Korea should now adopt a creative and independent problem-solving approach to meet particular and unique needs.

The PCER set the development of creativity as the first priority of primary and secondary education. To work towards this goal, the Commission proposed decreasing the number of required subjects, while increasing the number of electives.

### **Education for national reunification and international understanding**

In preparation for national reunification and globalisation, Korea must educate its people to live in harmony with others with different social structures, ideologies, and life styles. Korean education is also to pay more attention to such global issues as environment, international understanding, peace, and ecology. Environmental ethics and peace education should be integrated into the school curriculum, and a sense of community should be developed through collective activities.

### **Vocational education**

Vocational education should be enhanced and reorganised, so as to achieve a balance between labour supply and demand. A series of government active manpower development policies enabled the Korean industry to obtain the abundant and diversified labour force needed for industrial development through the mid-1980s. Since then, however, the Korean economy has suffered from a disproportion between labour supply and demand. Even given the many unemployed (having failed their college entrance examinations) and a great number of unemployed college graduates, manufacturing factories are experiencing a severe shortage of skilled labour. In addition, while service and large-scale enterprises are enjoying a relatively abundant supply of workers, manufacturing industries and small- or medium-sized companies are facing a shortage of skilled workers.

The PCER announced the following reform proposals for vocational education: to strengthen a stable labour supply structure; to revise school curriculum to be relevant to industrial needs; to tighten organic unity among vocational and technical educational institutions; and to intensify a partnership between school and industry. The detailed content of the reform proposal will be presented in detail in Chapter 4.

## **DIVERSITY OF SCHOOL EDUCATION**

Uniformity has been described as the major problem of Korean education. The MOE has control not only of the content, but also the management of school curriculum. Even the administrations of private schools are not autonomous. All decisions on school facilities and programmes have been affected by the MOE regulations. There are few differences between public and private schools other than the fact that teachers in public schools are subject to periodic transfers and those in private schools are not.

In a uniform and rigid system, schools cannot be flexible in providing educational programmes. Accordingly, it is difficult for them to meet the diverse needs of individual students. For this reason, there has been an increasing demand for various policy measures that would introduce diversity to schools.

### **Localisation of curriculum**

The Fifth National Curriculum dating from 1989 was the first attempt to diversify school education through a localisation of curriculum. This was expanded upon in the Sixth National Curriculum in 1995. The localisation of curriculum reflects local characteristics in the educational content. It has been broadly applied to social studies of primary schools. For example, in the Fifth National Curriculum, a unit on hometown was compiled in the fourth grade at fifteen different Provincial Levels.

Furthermore, the Sixth National Curriculum allowed fifteen local offices of education to provide guidelines for curriculum standards or to decide upon subjects to be taught. At the high school level, for example, the local offices of education can now make decisions on 106 units out of the total of 204. In the Sixth National Curriculum, school principals are given the authority to add and reorganise academic subjects. In primary school, for example, principals can add any subjects up to 34 hours per semester from the fourth grade on. In high schools, up to twelve units can be organised by principals.

### **Individualisation of curriculum**

Even though the Fifth and Sixth National Curricula allowed greater autonomy to school districts and schools in choosing courses to offer their students, they did not allow individual students to do so according to their own interests and levels of ability. Even optional courses are offered in those subjects where qualified teachers are available, which leaves students no room for choice. Furthermore, the number of mandatory courses is overwhelming.

In order to provide students with various learning opportunities according to their aptitude, ability, and academic or career plans, the PCER has proposed a

new curriculum that focuses upon reducing the number of required subjects and increasing electives, as well as diversifying curriculum according to different achievement levels. The new curriculum will consist of two parts: the national compulsory curriculum for the 1st through the 10th grade and one based on optional courses for the 11th through 12th grade. The national compulsory curriculum is organised by different difficulty levels rather than by the grade.

### **Reform of the high school equalisation policy**

The MOE implemented policy measures in 1974 to break down the hierarchical order of high schools and to equalise them. The competitive entrance examination of individual high schools was abolished, and a random school assignment following a general preliminary examination was introduced. Big cities, including Seoul, are divided into a number of high school districts, each of which had an administrative unit for random assignment. Applicants of a given district are assigned to one of the high schools within that region. This general preliminary examination system is applied to all high schools in big cities with the exception of special-purpose high schools, such as science, arts, athletic, and foreign language high schools.

This general preliminary examination system has been strongly supported by the public, for it contributed to the elimination of the quality gap among high schools, relieving young students from the “examination hell”, normalising middle school education, and serving the true goals of education.

However, it has been also criticised for bringing students of academically heterogeneous background into a single classroom for uniform teaching, resulting in mediocrity at the expense of excellence. It has been also pointed out that the autonomy of private schools has been undermined in this process. The efforts of private schools to distinguish their programmes are hindered. Furthermore, a random school assignment has deprived students and parents of a right to choose schools. Schools do not have to compete in order to attract students, which has lowered the overall quality of education.

In order to diversify schools, to offer students and parents more option for schools, and to promote competition among schools, the PCER suggested reforming the middle and high school entrance systems to ensure more choice, and gave the local offices of education the authority to decide concrete measures to achieve that goal. The PCER also proposed diversifying and specialising high schools by establishing various types of schools, such as international schools, information schools, design schools, art schools, and so forth. In the near future, self-sufficient private high schools will be allowed to select their own students and to decide tuition fees independently.

## **REFORM OF TEACHING METHODS**

### **Reform of textbook policy**

The publication and distribution of school textbooks have been administered by the MOE. The MOE's control over school textbooks standardises educational content, which results in uniform thinking. In addition, since textbooks have always been regarded as the single most important curricular material in Korean schools, very few non-textbook materials have been developed and provided. Accordingly, the Korean textbook policy has failed to satisfy diverse needs of individual students and communities.

In order to solve some of these problems, the MOE revised the textbook publication policy in 1995. Currently, the textbooks are classified into three categories:

- textbooks whose copyright is held by the MOE;
- textbooks authorised by the MOE; and
- textbooks approved as relevant and usable by the MOE or superintendents of local offices of education.

Middle and high school textbooks have been of the first type, and are now being gradually changed into the second type. Revision of the textbook authorisation system so as to allow more textbooks to be of the second type is now under consideration.

### **Educational use of multimedia**

The MOE established a computer education development plan in 1988 in order to help students attain basic computer literacy, support the application of computer-assisted instruction in school, and computerise school administrations. Under this plan, the MOE has provided computers to schools since 1989. Furthermore, the Educational Technology Research Centre was established under the Korean Educational Development Institute (KEDI) in 1988. The objectives of the Centre are to undertake research in computer education and to support the development of computer software for classroom use. During the period of 1989 to 1994, the KEDI thus developed and distributed approximately 600 computer-assisted programmes to schools (see Table 4).

The MOE is now carrying out a pilot project designed for inter-school instructional programmes using telecommunication. The MOE also prepared a plan, to start in 1995, to set up a multimedia information centre under each local office of education. In the recent reorganisation of the MOE, the Bureau of Educational Information Management was created to support the efficient introduction and utilisation of information technology in education.

Table 4. **Distribution of computers in schools, 1993 and 1997**

|                                 | 1993           |               |             |          | 1997           |               |             |          |
|---------------------------------|----------------|---------------|-------------|----------|----------------|---------------|-------------|----------|
|                                 | Primary school | Middle school | High school |          | Primary school | Middle school | High school |          |
|                                 |                |               | Academic    | Voc-tech |                |               | Academic    | Voc-tech |
| Total number                    | 102 858        | 50 642        | 22 856      | 37 772   | 163 619        | 94 953        | 44 499      | 119 951  |
| Number of computers per school  | 17             | 30            | 21          | 60       | 29             | 35            | 40          | 156      |
| Number of students per computer | 41             | 47            | 56          | 20       | 23             | 23            | 31          | 8        |

Source: KEDI Indicators (1994), p. 296.

In addition, the MOE support plan for multimedia education as proposed by the PCER (1994) recommends the establishment of the “National Multimedia Centre for Education”. It seeks to provide comprehensive support to the open education system in which school education, adult education and vocational and technical training are closely related through information technology. The goal of this centre is to develop and incorporate all feasible multimedia instructional materials in order to ensure that anyone can get them at any time and any place.

The multimedia centre is expected to perform the following functions: support the development of various multimedia software; examine, purchase and demonstrate electronic learning materials; digitise and translate printed learning materials into data-based ones; locate and provide domestic and overseas information about education and training; devise effective means for an information infrastructure and the educational use of such media as satellite and cable TV; co-ordinate the televised-instruction projects between the teachers and the authorities concerned. A task force for the prospective multimedia centre, entitled the “Committee for Education Information”, is to be organised.

### **Introduction of open-classroom education**

School classrooms are far from being a place where every individual is treated with respect. Instead, they are still dominated by the traditional “cramming” method of teaching which has been a major obstacle to cultivating students’ creativity and critical thinking. Furthermore, the multiple-choice types of test used in the college entrance examination system have provided no incentive for learning through in-depth thinking. Although Korean students are heavily burdened with learning tasks, their academic abilities, as the school level gets higher, tend to become lower compared with students in other countries.

One measure for reforming classrooms is to initiate the practices of open classroom education. Open classroom education differs from traditional education by increasing individual and small group activities and reducing direct instruction, such as lectures.

Starting with two private primary schools in Seoul in 1986, the number of schools adopting open classroom education has been increasing. It has increased to more than 100 throughout the nation and hundreds of schools are planning or considering introducing open classroom education. Most of these are primary schools except one junior high school in Seoul which started open classroom education in 1993. Since the new open classroom education approach is considered quite successful and in accordance with the Korean National Curriculum, a few more secondary schools are about to adopt open classroom education.

The open classroom education movement in Korea was initiated by individual schools, and was forced upon them by the government. When the success of open classroom education in the initial three schools was publicised by media sources, many educators became motivated to adopt the new approach. At present, many local offices of education or offices of school district have designated experimental schools for open classroom education. Local educational offices are publishing teachers' resource books and organising in-service training sessions on open classroom education theory and practice.

## **STUDENT AND SCHOOL EVALUATION FOR THE ENHANCEMENT OF EDUCATION QUALITY**

### **Improvement of the student evaluation and school record systems**

The school record system of the past ranked high school students by the total score they obtained from all areas. Most schools used a norm-referenced evaluation. The fundamental problem with this method is that it can hardly determine what and how well students achieve in each subject area. Furthermore, class instruction is designed for students to get good grades at the expense of the genuine goals and procedure of education. Instead of an inquiry-oriented instruction to ensure students' active participation through discussions, observations and experiments, teachers make students memorise specific knowledge that is to be asked in examinations. Consequently, classroom education has failed to develop students' abilities to understand and think in a comprehensive and creative way. In addition, the competition among students is likely to result in selfish, hostile individuals.

The PCER proposes a new Comprehensive School Record System based on a criterion-referenced evaluation that uses achievement criteria specifically set up for each subject area. The Comprehensive School Records System reflects students' curricular and extracurricular activities, voluntary service at student

associations or on-campus organisations as well as in the community, teachers' commentaries on overall student personality developments, and the results of the graduation examination in each subject area.

### **Improvement of the school evaluation system for quality education**

It is widely acknowledged that the most urgent task is to improve the accountability and quality of school education. In this regard, the PCER prepared a policy proposal to carry out a national evaluation of primary and secondary schools. The scope of this school evaluation includes the management of curriculum, teachers, and students. The principles, criteria, and methods of the evaluation will be formulated according to the guidelines prepared by the National Education Curriculum and Assessment Institute that is to be established.

The government will give preferential administrative and financial support to schools which diversify and specialise educational programmes and attempt to improve the quality of education. When the high school student selection system changes to one by which students can select a group of schools to attend and will be assigned to one of them through random shuffling, application rate may also be considered as one of the evaluation criteria.

## **PROFESSIONALISM AND WORKING CONDITIONS OF TEACHERS**

### **Improvement of teachers' professionalism**

Teaching at primary and secondary schools tends no longer to be considered a profession. According to a survey conducted by KEDI in 1994, only 52.6 per cent of teacher respondents regarded teaching as a profession and 42.3 per cent regarded it as clerical or manual work. This phenomenon is due to the low wage, low social respect, and lack of challenges in the teaching profession.

To ameliorate this situation, teacher training programmes have been improved to some degree since 1990. The MOE has provided scholarships to excellent students enrolled in colleges of education. In addition, teacher training programmes have become available not only to those students in the colleges of education at national universities, but to those in private institutes.

The local offices of education have been engaged in establishing training centres to provide in-service training, whereas such training was delegated to universities in the past. Graduate courses for primary school teachers were established at teachers colleges in 1996 and it is recommended that teachers take graduate courses to enhance their professionalism. The MOE has also expanded overseas training opportunities for teachers.

### **Improvement of teachers' status**

Most teachers believe they are underpaid when compared to their counterparts in big private firms. They are not satisfied with their working conditions, either. The ratio of students to teachers is too high and the burden on teachers is ever increasing.

One of the major efforts the government has made to improve teachers' socio-economic status was to initiate a deferential pay for long-term service in 1990 and several allowances thereafter. Starting from 1996, 10 per cent of all teachers will be cited every year for excellent job performances and will be paid a merit bonus of 50-100 per cent of their monthly basic pay.

To improve the social respect for teachers the MOE officially observes the Teachers' Day (May 15) throughout the nation. For teachers' welfare the MOE supports organisations, such as the Korean Teachers' Mutual Fund and the Korean Teachers' Pension, by covering a portion of their management expenses. The faculty lounge for female teachers was set up in 137 schools; in 1996, 37 more schools followed.

Teachers' organisations are considered essential in improving teachers' status. The Korean Federation of Teachers' Associations (KFTA) was founded in 1947 to promote co-operation and solidarity among members, to improve teachers' economic status and working conditions, to protect teachers' rights, and so forth. On behalf of its members, the KFTA has conducted collective negotiations with the MOE and local offices of education. It has attempted to increase the education budget, to raise teachers' salary, to upgrade teachers' status, and to improve the promotion system for the employees of educational public service institutions. Currently, the KFTA is proposing a special law to improve the teaching environment to the MOE.

## **DEMANDS FOR SPECIAL EDUCATION**

### **Opportunities for special education for the handicapped**

It is estimated that 2.4 per cent of all school-age children need special education. Only about half of severely handicapped children are enrolled in special schools. Approximately 44 per cent of the mildly handicapped are enrolled in special classes at regular schools and the rest receive integrated education in regular classes, which is not appropriate for the handicapped.

Several measures to improve special education for the handicapped have been introduced. Since 1988 teacher training programmes in special education have been offered to regular teachers. Teachers colleges provide compulsory

courses in special education. The revision of the Special Education Promotion Bill in 1994 provided a legal basis of early education for the handicapped at regular kindergartens. Various benefit and incentives will be given to those kindergartens that meet the requirements of the bill. The bill also requires kindergartens to offer teachers lectures or training courses on special education. Moreover, a law to promote the employment of the handicapped was enacted recently, as public interest in vocational education for the handicapped grows.

### **Development and management of special education for the gifted**

Basic research in special education for the gifted has been conducted since the late 1970s. The MOE has also recognised the need to produce creative elites to lead society to cope with the drastic changes in the world. The MOE has designated science high schools, foreign language high schools, arts high schools, and athletics high schools as special purpose high schools for 1990s. Students in these schools are selected in special exams.

In order to identify the scientifically gifted at an early age and to provide them with specialised educational programmes, the MOE founded the Kyonggi Science High School in 1983, and as of 1996 there were 15 science high schools in existence. In other areas, there were fourteen foreign language high schools, sixteen arts high schools, and thirteen athletic middle and high schools. These schools select students, develop curriculum, employ teachers, and manage financial resources according to their own regulations.

In 1994, some 57 out of 174 school district offices throughout the nation carried out special education programmes for the gifted in such areas as foreign language, mathematics, science, and computer science. These programmes are intended to improve abilities and creative thinking, to motivate learning, and to enable an earlier identification of the gifted. However, it has been pointed out that these programmes are not so effective due to the lack of facilities, materials, and teachers' professionalism, the fact that teachers are overburdened, and a low budget. Therefore, the expansion of the financial support and training opportunities for special education teachers are urgently needed.

About 9 per cent of primary schools, 17 per cent of middle schools, and 8 per cent of high schools provide special education for the gifted in science, mathematics, the Korean language, foreign languages, arts, and computer science. The Education Law was revised in 1995 to promote special education for the gifted as well as accelerated grade advance and graduation programmes in regular schools.

## **EDUCATIONAL ADMINISTRATION AND FINANCING**

### **Decentralisation and separation of educational administration from local administrative authorities**

Autonomy in education – that is how to take a proper balance between the self-regulation of autonomous educational institutions and the government regulations through the MOE – has been a major issue. Specifically, the following issues have been identified:

- the decentralisation of municipal and provincial education away from the MOE, and the separation of education from local administrative authorities at both national and provincial levels;
- the right of parents to choose schools for their children; and
- the differentiation of roles of the public and private sectors (private schools).

Since the implementation of the decentralisation policy, the administrative authority over the operation of primary, middle, and high schools has been delegated to provincial authorities to a considerable degree.

As for school operations, the power of the municipal and provincial boards of education will increase when a new policy is implemented that would give local governments more autonomy from the central government. For the same purpose, a proposal to reclassify teachers as employees of municipal and provincial governments rather than the national government is currently under consideration. The decision-making authority of a board of education is entrusted from the municipal and provincial government while the local council makes final decisions over legislation, budget, and the closing of accounts. The constant competition between these two organisations results in a tremendous loss of administrative resources.

To strengthen the ties between the municipal and provincial government and the municipal and provincial board of education, the latter should be given more authority in the composition of educational committees and the election of the committee members.

### **School based management**

Though the local educational governance system has been in operation since 1991, schools have gained little autonomy to date. Schools have had little power in organising educational programmes that are relevant to their unique situation. Parents and communities hardly participate in the decision-making process or other school practices.

Following the suggestions of the PCER, the MOE required, as of the second semester of the 1995 academic year, that hundreds of public primary and secondary schools organise tentatively the School Management Committee, consisting of parents, teachers, principals, community leaders, alumni representatives, and educational specialists. Through this experimental period, every national and public primary and secondary school has organised a committee. This committee is expected to promote local autonomy in each school and to enable schools to provide diverse programmes that reflect the needs of individual communities.

The School Management Committee is distinguished from the previous parents' organisations by its wider range of functions, such as deliberation and consultation, while the latter was to provide financial support mainly. The committee makes decisions and gets consulted on the following issues: budgeting and settling school accounts; selecting elective courses and extra-curricular programmes; formulating the school charter or regulations; establishing and operating a committee to recommend prospective principals or teachers; raising and utilising school development funds, collecting and managing community contribution and operating and funding after-school activities.

## **Educational financing**

### ***Increasing educational budget up to 5 per cent of the GNP***

Public education expenses account for about 25 per cent of the government budget. However, the educational expenses per student takes up a considerable portion in per capita income and this budget is still insufficient to improve public education; therefore, the proportion of the education budget in the GNP should be increased.

During the presidential election in 1992, the ruling party pledged to remedy the deficiencies in the education system by increasing the government budget for education to up to 5 per cent of the GNP. In 1995, the PCER recommended the same policy, and the MOE set up a three-year budget plan that would increase the education budget from 4.1 per cent as of 1995 to 5 per cent of the GNP by 1998. According to the plan, the central government was to absorb approximately 30 per cent of the additional expenses, the municipal and provincial governments 20 per cent, with the remaining 50 per cent to be obtained by the education tax increase (see Table 5).

Educational financing includes the MOE budget, the transfer from the general accounts of municipal and provincial governments, special accounts for education from municipal and provincial governments, and expenses for national educational institutions under ministries other than the MOE. Tuition and fees collected from students were not included even though the Ministry of Finance and Economy insisted that they should be.

Table 5. **Estimated education budget**

(trillion won)

| Classification             | 1995 | 1996 | 1997 | 1998 | Total<br>(1996-1998) |
|----------------------------|------|------|------|------|----------------------|
| % of GNP                   | 4.11 | 4.53 | 4.80 | 5.00 | —                    |
| Estimated education budget | 14.0 | 17.6 | 20.7 | 24.0 | 62.3                 |

Source: Ministry of Education, unpublished internal documents (1995), p. 9.

### ***Local responsibility on public education***

Financing for public education is primarily the responsibility of the central government. About 87 per cent of the MOE budget is spent on grants to finance municipal and provincial education, while municipal and provincial governments contribute little to finance local education.

In 1995 the total education budget was 12 621.2 billion won, of which municipal and provincial governments contributed only 5.7 per cent, or 725 billion won. In the last five years, their contribution has averaged only 5.2 per cent of the total budget. Of the funds used to finance municipal and provincial education, the general account of municipal and provincial governments pays about 19.6 per cent in Seoul, and 9.3 per cent in the five metropolitan cities administered by the central government.

Since the administrative branch of municipal and provincial governments was disconnected from the education branch, the local governments and their residents play limited roles in the management of the education system, which makes them reluctant to assume more financial burden. Consequently, the PCER recommended that more financial and administrative authority over local education be given to municipal and provincial governments.

### ***Administration of educational funds***

The MOE is currently planning to introduce a system that grants autonomy to each school in drafting its own budget. Rather than a detailed line-item budget, public schools will be given a total budget allowance that they can spend in whatever way they see fit. This system is similar to one adopted for private schools and can be realised with a gradual increase in the contribution of each province.

The PCER suggested that each school form the “School Management Committee” that will draw up the school budget, make administrative decisions, and collaborate to increase financial resources. In addition, the procedure to budget and close accounts will be made public for more effectiveness.

### **Private education expenses**

One problem with Korean education is that, while funding for public education is insufficient and structurally weak, a large sum of money is spent on private education, such as private tutoring. Due to such structural defects, parents and families bear a heavy financial burden.

As of 1994, private education expenses amounted to 17 464 billion won, or 6 per cent of the GNP. Tutoring and other out-of-school supplementary education alone took up 2.7 per cent of the GNP at primary and secondary levels. Parents spend this much money, and yet it is not a part of the official educational expenses and does not contribute to the overall improvement of education. A study on the total amount spent on private tutoring and its proportion in the GNP over the past 17 years shows that private spending has increased drastically (see Table 6).

Table 6. **Change in private expenditures on education**  
(billion won, 1994 constant price)

| Classification       | 1977   | 1982    | 1985    | 1990    | 1994    |
|----------------------|--------|---------|---------|---------|---------|
| GNP (A)              | 78 015 | 100 283 | 132 061 | 221 048 | 289 500 |
| Ed. budget (B)       | 2 138  | 3 682   | 4 214   | 6 525   | 11 053  |
| Private spending (C) | 1 708  | 3 988   | 7 711   | 12 152  | 17 464  |
| C/A (%)              | 2.19   | 3.98    | 5.84    | 5.50    | 6.03    |
| C/B                  | 0.80   | 1.08    | 1.83    | 1.86    | 1.58    |

Source: Ministry of Education/KEDI (1996), *The Korean Education System, Draft Background Report*.

Expenses for tutoring and out-of-school education make up about 45 per cent of the total expenses for private education at primary and secondary levels. The expenses for out-of-school education are the highest at primary schools, and middle and regular high schools follow.

### **Autonomy of private schools**

From the beginning, the PCER determined that the development of private schools would be a key issue in education reform. In 1994 the PCER suggested basic principles and guidelines for reform proposals for private schools. The PCER suggested that a balance between equality and autonomy and an introduction of market mechanism in school management.

The guidelines proposed by the PCER were as follows:

- division of roles and responsibilities between public and private schools and making public schools take more responsibility in compulsory education;
- more autonomy for private schools in operating educational programmes in order to promote diversity and excellence in private education;
- improvement of educational conditions and standards of private schools, particularly academic programmes, teacher appointments and financing;
- introduction of the “School Choice Programme” to include the “School Management Committee”, to allow parents and students to participate and to choose schools when applying to middle and high schools; and
- selective financial support to private schools.

The PCER classifies private schools into three categories: independent private schools, private schools with public financial support, and semi-public private schools under the MOE control. The MOE will provide financial support only to semi-public and subsidized private schools, and allow more autonomy to independent ones when they select students and set tuition fees.

## HIGHER EDUCATION

The expansion of higher education in Korea is unprecedented world-wide. The driving force behind this dramatic increase has been an ever increasing demand for higher education in Korea. This demand has several causes: an unusually high return for college education at an individual level; a steady growth of household income coupled with a smaller number of children; and the long tradition of Confucianism, which respects advanced learning. To meet the ever growing demand for college education, the government chose to privatise higher education while expanding the programmes at public institutions as well.

Many acknowledge that the increasing supply of individuals with a college education has contributed to both the economic growth and the democratisation of the Korean society. However, the fact that the demand exceeds the supply of higher education, has led to intense competition over entry into prestigious universities, resulting in many social problems associated with college entrance examinations. Moreover, the policy of higher education for all has been achieved only at the expense of quality. In the presence of an overwhelming number of applicants, institutions of higher education (IHEs) have been mainly interested in qualitative expansion and increased tuition, which has been the major source of their revenue. They have been reluctant to expand costly programmes unless incentives, such as government subsidies, are provided. The result has been a considerable gap between university programmes and corporate needs, and the deterioration of quality in teaching and research.

Until recently, government intervention in higher education had been centred around college admission and enrolment regulations. Admission policy has aimed at securing fairness in college entrance examination without hampering institutional autonomy. The enrolment regulations had three goals:

- to sustain social demand for higher education at a desirable level;
- to accommodate corporate needs, such as changing the total college enrolment each year according to the manpower requirements of business and government sectors; and
- to retain the quality of higher education (by preventing a sudden increase in the enrolment), through setting governmental standards for the faculty

and facilities and approving the size of academic programmes based on these requirements.

Government restrictions coupled with the excessive demand resulted in the IHEs settling for an easy task of following the government guidelines, rather than being innovative. This, in turn, gave rise to the proliferation of almost identical programmes across the institutions. Consequently, IHEs failed to meet the diverse needs of the society and economy. Furthermore, the government restrictions and excessive demand gave them a monopoly on higher education, allowing them to operate with minimum competition and accountability.

This situation, however, is to change in the near future for the two following reasons. First, the development and educational use of information technology allows learners to obtain credentials from foreign institutes more easily and at a lower cost, leaving a smaller niche for local institutes. The monopoly of IHEs in Korea is fundamentally devalued. Secondly, the number of college applicants is levelling off, and it has been projected that by the year 2004, it will be the same as the total enrolment quota of the IHEs. It will then be the institutions that are competing against one another, and not the students.

To cope with these changes, the government and IHEs had to rethink and revise their conventional practices. Since the early 1990s, the government has begun to deregulate the laws and orders in higher education to diversify and enhance IHEs. The focus has been to maximise institutional autonomy, so as to encourage reform and innovation on the part of IHEs. In other words, instead of *ex ante* regulations, the government has opted for *ex post* policy measures. Consequently, a set of incentives were introduced. Among these are programme evaluations, performance-based financial support, and an information release to the general public concerning those immediately involved. For an effective implementation of this new policy, the government has substantially increased the budget slated for higher education.

## **DIVERSIFICATION OF HIGHER EDUCATION SYSTEM**

### **Higher education reform**

Uniformity is one of the most striking features of Korean higher education. Regardless of differences in size, ownership, local needs, and educational goals, colleges and universities are almost indistinguishable in terms of educational programmes and management. Private institutes are also controlled by the Private School Act, meaning that they also resemble public institutes.

The environment for higher education, however, has greatly changed due to the universalisation of higher education and the advent of the information and globalisation era. The PCER has proposed the reform of higher education insti-

tutes to help them survive global competition. Two areas for change – diversification and specialisation – have been proposed. The PCER proposal recommends that each institute develop its own programmes to allow more diversity and speciality. Universities and colleges are encouraged to make their own specialisation plan for their own niche in the higher education market, while the government provides administrative and financial incentives. Consequently, the government has, for instance, chosen a small number of provincial engineering schools and given them special financial support since 1994. The academic disciplines are electronics, mechanics, mechatronics, and semi-conductor engineering and other applied sciences.

The concept of specialised “general”, “professional” and “special” graduate schools is being promoted, as is the idea of specialised “graduate school-only” universities. Graduate schools are also allowed to specify graduate courses for academic and professional degrees, and to integrate masters’ and doctoral programmes into a comprehensive doctoral one.

### **The new college system**

The Education Reform Proposal (ERP) also proposes the New College (NC) as an alternative in higher education for the workers and adult learners who are deprived of educational opportunities. It is part of a continuing education system that will provide courses toward an industrial associate or bachelor’s degree at the work sites. It confers an industrial associate degree to those who are employed and finish a junior college programme in the related field following two or three years of vocational education in a high school. It can award them an industrial bachelor’s degree after one or two more years of education in the related field.

A new college awarding industrial associate degrees can either be founded by a consortium of junior colleges and industries, or by a nearby industry, which would allow for the sharing of educational facilities. The new college for a bachelor’s degree can be founded by a consortium of four-year polytechnics and industries, or once again, a nearby industry. A single new college cannot offer both programmes. The new college applicants will have no entrance examinations. Only their academic and work records will be examined.

The new college is intended to provide easy access to vocational education with the assistance of information technology and telecommunications. Like other institutions of higher education, it can confer advanced degrees in the vocational field, such as professional master’s and doctoral degrees. These professional degree programmes at the new college are expected to resolve the problem of conventional colleges and universities that are too academically oriented and fail to accommodate professional and vocational education in the curriculum.

### **Proposed reform for professional graduate schools**

The universalisation of college education requires that professionals, including medical doctors, clergymen and lawyers, be equipped with an advanced education and speciality. Furthermore, training these professionals properly, with adequate programmes, has become more important in the era of information and globalisation in which professional expertise decides individual and national competitiveness. Thus the PCER has proposed the reform of professional graduate schools in medicine, theology and law. These professional graduate schools will admit four-year college graduates with diverse academic backgrounds.

The current system requires students to complete six years of medical school at undergraduate level and to pass a national exam for a medical doctor licence. According to the new policy, a graduate school of medicine will admit those with bachelor's degrees in various fields. The students of this professional medical school will be conferred an M.D degree upon graduation and a "Doctor of Medical Science" degree after a certain period of practice including one as a General Practitioner. For the development of medical and life sciences, the professional school can offer a collective programme for M.D and Ph.D.

The PCER has also proposed that the professional graduate school in theology be opened by 1997. It will offer college graduates three-year programmes with various majors available, in order to train highly qualified religious leaders. The school will offer both master's and doctoral degrees in divinity. Present day seminaries or university theology departments can be transformed into this professional graduate school.

The PCER has also recommended that a professional graduate school in law be opened by 1997. Offering various majors, it will consist of three-year programmes for college graduates, in order to train highly qualified, competitive lawyers. The graduates will be conferred a master's degree upon completing the coursework and a thesis. The present graduate schools in law can change their programmes to open a professional school. These proposals are now being reviewed by the MOE. The establishment of a professional graduate school in law by 1997, has also been recommended by the PCER.

### **STUDENT ENROLMENT QUOTA SYSTEM**

For the last fifty years the government has controlled the size of enrolment at colleges and universities. The MOE issues guidelines concerning the enrolment quota, with each university then proposing the number of students to the MOE. Based on these proposals, the MOE prepares a draft enrolment quota to be approved by the Cabinet Meeting.

Since 1994 the MOE has gradually allowed universities and colleges greater flexibility in determining enrolment quotas. In order to sustain an adequate standard, despite a sudden increase of students, the MOE provides universities with financial and administrative support.

As part of the Education Reform Proposal, the PCER has recommended that, once the accreditation and external evaluation are fully institutionalised each college and university be given the right to determine the enrolment size. The MOE is already moving in this direction and has decided to deregulate the enrolment quota. In the first phase, the MOE will set the total quota for an individual college and university while the specific quota for divisions and departments will be set by colleges and universities. In the second phase beginning in early 1997, the conditional quota system will be put into practice at provincial universities. Those universities and colleges that meet certain standards for educational facilities and research accommodations will be allowed to increase the quota at their discretion. In the final phase beginning in 1998, all universities and colleges will be allowed to determine their own enrolment size.

## UNIVERSITY ADMISSION AND ENTRANCE EXAMINATION

The entrance examination for colleges and universities in Korea is one of the most important annual events for the whole society. The admission policy has changed ten times since 1945. The entrance examination system is still criticised for relying heavily on a single, multiple-choice “true and false” test. The test scores were the sole standard for determining the academic qualifications of the applicants.

The PCER recommends different admission policies for public and private institutes. It has been recommended that public universities and colleges use the School Records from 1997 as a main admission criterion. The Scholastic Achievement Examination for the College Entrance (SAECE) score, writing test, interview, and practical test are optional in selecting students. The degree to which records are used in selecting applicants may vary at each institute. As of 1997, private universities and colleges are allowed to decide their own admission policy.

In the near future, universities and colleges will be able to admit students at any time of the year. At present an applicant can rarely apply to many universities and colleges simultaneously because most of them administer interviews and examinations on the same day.

Under the new policy, schools are encouraged to focus on extra-curricula activities, social service, and civics, along with academic achievement. It is also expected that the new policy will allow a great variety in admission policy across institutions, which will induce secondary schools to diversify their programmes.

## UNIVERSITY ACCREDITATION SYSTEM

The current university evaluation and accreditation system of Korea is in operation after a decade of trials and errors. The Korean Council for University Education (KCUE), a non-governmental independent legal entity, is responsible for the accreditation of educational programmes for all four-year colleges and universities. Two different assessments are carried out at departmental (major) and institutional levels. These two assessments supplement one another, contributing to the improvement of university education.

University evaluation and accreditation have led to visible changes in, and re-structuring of, Korean universities. It also gave universities and their constituents an opportunity to reflect on themselves and to consider seriously the fulfilment of their responsibilities as an educational institute. The evaluation and accreditation process has helped to build up an atmosphere of competition among various universities, the faculty and students.

The PCER suggests that the government encourage institutes to conduct a self-evaluation each year and a comprehensive evaluation on research and education every three to four years.

The MOE provides financial incentives to the institute with positive evaluation results. Governmental support will be given to each department or school, instead of university or college, in order to encourage more specialisation in an area where they have a competitive edge. This policy will trigger the efforts to diversify higher education, allowing institutes to control the quality of their own education, and helping them survive in the highly competitive world through concentrating resources on the areas of their expertise.

## GOVERNANCE OF HIGHER EDUCATION

Recently, the MOE granted individual universities and colleges more autonomy on governance, administration and management. Based on this MOE policy, higher education institutes make their own agenda for the upcoming century. The general trends are as follows:

- to strengthen the planning organisation and its function;
- to strengthen the network and the public relations;
- to build a management system with an emphasis upon international exchanges;
- to rationalise personnel management;
- to build an evaluation system for the administrative staff;
- to build an information-oriented and scientific administration system;

- to seek for open administration; and
- to organise new committees for rational decision-making.

Reform in university administration and governance is already underway. Many university and college presidents have been elected by the faculty since the late 1980s. Recently this has been challenged by the board of trustees at some institutions. The conflicts between the faculty and the board are serious at some schools.

To increase the autonomy of higher education institutes, the government has revised the Education Act and related regulations to allow individual institutes to choose their own development plan. The government is now encouraging universities and colleges to build on self-reliance that will lead to greater diversity and specialisation. It has also suggested reducing the required credit hours for graduation, deleting one-sixth up to one-fourth of the current total number. The proposal is to allow students to choose freely the courses that best suit their career plan. The movement toward diversification and specialisation is being carried out by a series of government incentives.

## FINANCING OF HIGHER EDUCATION

The financial resources of higher education are tuition and fees, governmental aids, grants and research contracts, endowments, and others. Seventy five per cent or more of the total higher education expenses comes from tuition and fees, especially at private institutes. The government support takes up 13.3 per cent, comprising 6.7 per cent of the MOE budget. Endowment takes up under 1 per cent. As a result, tuition and fees have been steadily increasing (see Table 7).

Table 7. **Trends of government's public expenditures for higher education**  
(billion won and %)

| Year | GNP (A) | Government's budget (B) | Budget of MOE (C) | Budget for univ. edu. (D) | D/B | D/C  |
|------|---------|-------------------------|-------------------|---------------------------|-----|------|
| 1965 | 805     | 94                      | 15                | 1                         | 1.7 | 10.2 |
| 1970 | 2 776   | 446                     | 78                | 4                         | 1.0 | 5.7  |
| 1975 | 10 064  | 1 586                   | 227               | 12                        | 0.8 | 5.6  |
| 1980 | 36 672  | 5 804                   | 1 099             | 99                        | 1.7 | 9.0  |
| 1985 | 78 088  | 12 532                  | 2 492             | 179                       | 1.4 | 7.3  |
| 1990 | 168 437 | 22 689                  | 5 062             | 362                       | 1.6 | 7.2  |
| 1994 | 299 436 | 47 593                  | 10 879            | 734                       | 1.5 | 6.7  |
| 1996 | 386 640 | 64 926                  | 15 565            | 798                       | 1.2 | 5.1  |

Sources: Ministry of Education (1994), *Statistical Yearbook of Education*; Economic Planning Board (1994), *Major Indicators of National Economy*.

Tuition and fees account for 80 per cent of the revenue at private institutes and 40 per cent at public ones. There have been serious conflicts over tuition between the students and the school authorities of private universities and colleges. The former insists that tuition fees be kept low while the latter demand a tuition increase to secure financial resources for quality education. Severe financial constraints have induced private universities and colleges to demand that the government expand financial assistance and support. The MOE plans to increase the grants to private institutions by up to 10 per cent of the university budget. Even this small amount has been crucial to the survival of private institutes. The rationale, purpose and distribution of government grants have been subject to debate since 1995.

Currently, private universities are co-operating vigorously to create the University Development Fund as a means of solving their financial problems. In addition, they are demanding government permission for the special admission based on donations. The rationale for this policy is the limited government support and financial difficulties of private universities and colleges. Nonetheless, controversies over this admission policy are unlikely to be resolved in the near future.

As for public universities, government grants have been distributed evenly on the basis of the numbers of students, employees, and majors offered. The universities draw up their own budget and raise funds for education or research.

The IHEs have begun to respond to the government initiatives by reorganising their programmes and introducing innovative management. As of 1996, the results of the May 31 Education Reform Plan are best seen in the arena of higher education. Innovations are taking place in almost every academic programme of most IHEs. The government has announced various policy measures that are designed to differentiate rewards between innovative institutes and programmes, and the others.

## **VOCATIONAL AND TECHNICAL EDUCATION AND TRAINING**

### **THE SYSTEM OF MANPOWER DEMAND AND SUPPLY**

#### **Balance between supply and demand**

An abundant and well-trained supply of human resources was the main contributor to Korean economic development in the past. However, the growth rate of the economically active population has decreased since the early 1980s, while the demand for manpower has increased at an annual rate of 10 per cent. Moreover, while the enrolment in vocational high schools rapidly increased during the 1970s, it decreased throughout 1980s partly because government policy on technical education shifted its emphasis from the secondary to the higher education level. Small-or medium-sized firms, especially in those manufacturing industries, have gone through a severe manpower shortage since the mid-80s.

In 1991, the MOE initiated the “Vocational High School Reform Policy”, which was regarded as an innovative and epoch-making move for vocational and technical education. The basic goals of this policy are to strengthen vocational and technical education in secondary education and to solve the problem of the shortage of skilled labour.

Toward this end, the MOE has undertaken the following measures: to establish technical high schools; to increase the number of classes offered by the existing schools; to transform general and commercial high schools into technical ones; to attract high-quality students to technical high schools by providing more scholarships; to improve the quality of education by providing facilities and equipment necessary for laboratory work and on-site training.

In recent years, a great number of skilled labourers in the manufacturing industry moved into a non-productive service sector, worsening the shortage of skilled labour. This phenomenon is due to the tendency among the young to avoid 3D (dirty, dangerous, and difficult) jobs with the increase of per capita income on the one hand, and the disadvantageous wage and promotion structures in the manufacturing sector compared to those in the service sector, on the other.

The excessive flow of skilled labour into the private service sector represents an enormous loss in terms of the cost-effectiveness of vocational and technical education and training. When they work in the service sector, their skills become useless and the government investment in training them is wasted. Thus, if this undesirable flow continues, the enrolment increase policy alone will not be enough to curb the shortage of skilled labour. The government hopes to stop this flow by suppressing the undesirable expansion of the private service sector via tax and financial restrictions.

### Socio-economic circumstances of skilled labour

In 1985, the ration of wages of high school graduates to four-year college or university graduates was 100 to 227. Even though wage difference had been gradually reduced, it was still 100 to 155.7 as of 1994. The substantial difference makes potential members of the labour force avoid vocational and technical training, and others, in the labour force, change their jobs or move to service jobs (see Table 8).

The government has made various efforts to reduce the wage difference. It has requested that government-funded institutes, banks and stock companies, and large-sized firms decrease the wage difference between vocational high school and college graduates. It has encouraged industrial firms to develop a new wage system based upon individual work performance. Owing to these efforts, the Korean Chamber of Commerce and Industry announced in 1990 that the average income of skilled labour with four years of experience after high school graduation exceeded that of four-year college graduates at entry level. This announcement was widely welcomed by people concerned with vocational and technical education at the secondary level. In addition, the Ministry of Finance and Economy presented similar data in 1995.

Table 8. **Trends of wage level by school attainment**  
(percentage)

|      | Middle school<br>graduates and under | High school<br>graduates | Junior college<br>graduates | College and university<br>graduates and over |
|------|--------------------------------------|--------------------------|-----------------------------|----------------------------------------------|
| 1975 | 57.2                                 | 100.0                    | 136.2                       | 214.4                                        |
| 1980 | 68.8                                 | 100.0                    | 146.3                       | 228.5                                        |
| 1985 | 74.7                                 | 100.0                    | 129.8                       | 226.5                                        |
| 1990 | 83.8                                 | 100.0                    | 117.4                       | 185.5                                        |
| 1994 | 86.9                                 | 100.0                    | 107.4                       | 155.7                                        |
| 1995 | 87.2                                 | 100.0                    | 108.4                       | 155.9                                        |

Note: The table only shows the wage difference among new employees (experience not counted).

Source: Bureau of Statistics (1995), *Social Indicators in Korea*, p. 73.

According to the Education Reform Plans announced in February 1996, a professional degree system will be initiated to recognise technical training. Degrees such as “Industrial bachelor”, “Professional Master”, and “Professional Doctor” will be conferred to the graduates of vocational and technical higher educational institutions, like vocational junior colleges, technical colleges, and New Colleges which are to be newly established. The professional degree system is expected to improve the social status of industrial workers and to encourage young people to participate in vocational and technical education.

## **QUALITY OF VOCATIONAL AND TECHNICAL EDUCATION AND TRAINING**

### **Relevance of the curriculum**

One of the serious problems with vocational and technical education is that the curricula fail to reflect the actual needs of industries. The major causes are theory-oriented curriculum, inadequate laboratory facilities, impractical on-site training, and the lack of field experiences among the teachers.

Another serious problem of technical schools is the gap between curricula and the national skill certificate system. Most students in technical schools want to score high in the national certificate examination and study hard. What is taught at school, however, is different from what is asked in the national examination.

Another problem of the vocational and technical school curricula is the lack of programmes designed for affective learning such as developing work ethics and positive attitudes. Given that one of the major causes of the mismatch between the labour supply and demand in the Korean labour market is young people's avoidance of 3D jobs, as noted in the previous section, it is important to teach students to have a proper perspective of work and to raise their professional consciousness.

In order to reinforce on-the-job training, the MOE introduced some technical high schools to the “2 + 1 System”, which is the school-industry co-operation programmes. The Education Reform Plans of the PCER recommends that the vocational qualification system be reformed to respond to the needs of the industrial sector. In preparation for the international migration of the workforce, excellent qualification systems, already commonly used in some other countries, will be adopted. Industrial sector participation in the management of the qualification system will be increased, for they are the final consumers.

To make the vocational education curricula more responsive to industrial needs, the linkage between education and qualification programmes will be enhanced. To train mechanics, certificates will be issued, without an additional national examination, to those students who successfully complete vocational and

technical education and training courses at the technical high schools or training institutes accredited by the proposed “Vocational Resource Development Institute”.

The government has revised the regulations of vocational junior colleges to allow them to organise and decide upon their own curricula and eventually to train their students to be more adaptable to the rapid changes of industrial technology. It has also encouraged polytechnics to develop and manage their own curricula based not only on the needs of students but also on those of society and industry.

### **Quality of students**

The majority of students at vocational high schools and junior colleges are from working-class families or with relatively low academic achievement. Recently, the number of outstanding students entering vocational junior colleges has slightly increased, as the public attitude toward vocational and technical education has changed. Nevertheless, the number is still relatively small.

The government has attempted to recruit excellent students to vocational and technical institutes by providing scholarship and other forms of financial assistance. The government will increase the percentage of tuition-exempt incoming students in technical schools by as much as 50 per cent in the near future. Meanwhile, the government has introduced the “Priority Entrance System” for vocational junior colleges so that outstanding high school graduates with high GPA (Grade Point Average) can be admitted prior to other students. The “Special Entrance System” to recruit in-service workforces has been also adopted.

The government also provides incentives for in-plant workforces to enter vocational education institutes, such as offering rewards to masters and outstanding workers, granting loans with favourable conditions when they set up a private business, and providing special funds for skill apprenticeship. Those concerned are also given special allowances for children’s tuition and fees, priorities in medical treatment and housing, and an exemption from military service if employed in defence industries, and holding a license in their speciality.

A special preference is given to technical high school graduates who want to pursue higher education as long as they remain in the same field. Although they are required to take the scholastic achievement test, they are screened separately for college admission from those graduates of general high schools.

### **Teachers’ ability in teaching vocational subjects**

Difficulties in securing qualified teachers and the lack of field experiences among teachers have been central concerns of vocational and technical education

and training institutions. Only a handful of national universities have a technical education department within the college of engineering, to train qualified teachers. Due to their relatively low standing, these departments are not in a good position to compete against other departments in attracting good students. They fail to meet the quantitative demand of teachers in this field, let alone, the qualitative one. Vocational junior colleges and non-formal vocational training institutes have not endeavoured to recruit a qualified faculty with adequate on-the-job experience. Adopting the "Vocational High School Reform Policy" in 1991, the MOE attempted to address the shortage of vocational teachers to some degree. For example, the authority to supply vocational teachers in a region was given to the provincial superintendent. At the higher education level, the government has encouraged vocational junior colleges and polytechnics to invite those experienced in industry to become professors. It also strengthened domestic and foreign in-service training for teachers that provides diverse training programmes on industrial sites. The PCER presented policy intended to change the teacher recruitment system through emphasizing field experiences, inviting administrators and/or technicians at managerial level from industries to teach, and introducing a sabbatical semester system to allow teachers to go to industries.

### **Facilities and equipment**

Efforts to upgrade the quality of vocational and technical education require increased financial support. Even though the importance of vocational and technical education is constantly increasing with the rapid developments in the economy and industry, the investments in this area have been severely limited up to now. In technical high schools, outdated facilities and equipment are identified as the main obstacle to be removed to improve the quality of vocational and technical education.

To solve these problems, the government is investing more in the facilities and equipment of vocational schools and training institutes. According to the Education Reform Proposals, additional funds created, as a result of the 5 per cent growth in GNP (which will be designated as Education Finance), will be invested, with a priority being the modernisation of vocational education facilities, including those at vocational high schools. Financial support for local vocational education from the central government will be differentiated in order to induce matching funds from local governments. Financial support and tax exemption for public and private vocational education institutions will be expanded considerably.

In addition, the Manpower Development Fund (of a trillion won) will be established by the year 2000 with joint contributions by the Ministry of Finance and Economy, Ministry of Education, Ministry of Labour, and Ministry of Trade

and Industry. Every year from 1997 to 2000, a quarter trillion won will be contributed to the fund. This fund will be invested in vocational education for employees in small-sized firms, the self-employed, and deprived groups. Furthermore, in order to expand consumer choices and to upgrade the quality of vocational education through competition among various institutions, a voucher system is being considered.

Another policy, under consideration by the government, would mandate private firms to provide funds or necessary facilities and equipment to vocational high schools whose graduates they recruit. As an incentive, the government would offer tax exemptions on such investments.

## **LINKAGES IN VOCATIONAL AND TECHNICAL EDUCATION SYSTEM**

### **Vertical linkage**

There are three main types of vocational and technical education institutes in Korea. They are 3-year vocational high schools, 2-year vocational junior colleges, and 4-year polytechnics. In general, these institutes are not organically related. The curricula of lower-level institutes are not systematically linked with those of higher-level institutes and they often overlap with each other.

The PCER recommends the establishing of a network among different levels of vocational and technical education institutes. In the Education Reform Proposals (ERP), vocational junior colleges are recognised as pivotal educational institutions, which connect vocational high schools with colleges or universities. According to the ERP, the curricula of vocational junior colleges can be linked to those of the eleventh and twelfth grade, or to those of colleges and universities. Linkages among different vocational and technical curricula can be formed by co-operative development and management of curricula and teaching materials.

As the focus of vocational and technical education is shifted from the high school to higher education under the ERP, vocational high schools are expected to prepare students to acquire basic knowledge and aptitude necessary for higher-level vocational education. Vocational junior colleges, polytechnics, and technical colleges will perform a critical role in industrial manpower supply.

### **Horizontal linkage**

It has been repeatedly pointed out that the scope of vocational and technical education and training institutes and their respective roles need to be clarified. The disputes on these issues are centred around the horizontal linkage between the two groups of institutes supervised by the MOE and the MOL. Vocational high schools and “vocational programmes” within general high schools are under the MOE supervision, and vocational training institutes are under the MOL supervi-

sion. Those involved in vocational and technical education at secondary level claim that there is no functional differentiation among the programmes. Subsequently, they insist that each vocational institute can serve different training needs by maintaining institutional differences and a co-operative tie.

Equally important is the problem of duplication or overlap of the curricula of technical junior colleges, polytechnics, and colleges of engineering at higher education level. Though the polytechnics have some distinct features, such as unlimited years of attendance and diverse student selection procedure, their functions are very similar to those of technical junior colleges.

The PCER pursues diversification in vocational education at the high school level and at the same time urges a close interrelationship among the different educational programmes. According to the ERP, the curricula of vocational high schools and general high schools may be combined and integrated so that students can attend classes in one or both as needed. A transfer from a vocational high school to a general high school will be permitted.

The ERP also aims to establish a clear distinction among vocational junior colleges, polytechnics, and technical colleges. Vocational junior colleges will be specialised to confer an “industrial bachelor” degree to the graduates. Polytechnics will expand their role to educate adults and youths by serving as the central axis of a network among higher vocational institutions. Technical colleges will play a central role in labour supply in the national infrastructure sector. An “industrial bachelor” degree will be conferred to the graduates of the vocational junior college track established in technical colleges.

## **PARTNERSHIP BETWEEN SCHOOL AND INDUSTRY**

### **Efforts of industry for vocational and technical training**

From a long-term policy viewpoint, the increasing demand for technical manpower and the growing sophistication of production technology will make it difficult for schools to bear the entire responsibility for vocational and technical education. As vocational and technical education in high schools is becoming more and more burdened with the systematic organisation and transmission of basic knowledge and skills, the task of specific skill training must be relegated to vocational training in industry.

Many criticise private firms for only recruiting and utilising trained manpower, neglecting their responsibility to train prospective industrial manpower. In addition, the contribution of private firms is limited to providing financial support for the training of those workers whom they will employ later.

The government has provided various measures and incentives to encourage private firms to participate more actively in vocational and technical training. The

MOL recently stipulated that business firms with more than 1 000 full-time employees must provide in-plant vocational training programmes. They are to invest at least 2 per cent out of the total annual wage paid to employees for in-plant vocational training programmes. Those employers liable for conducting in-plant vocational training may meet their obligations by offering actual training courses, providing financial support to those centres accredited by the MOL, or by installing or purchasing training equipment or facilities. Any employer who fails to conduct such training or to spend the required amount for vocational training must pay the shortfall as a vocational training levy.

For the deprived groups, the government policy requires firms to employ a certain number of the disabled, the elderly and other disadvantaged groups, and to provide vocational training so that they may improve their job skills. Training is provided under the leadership of the MOL to enhance the skills, employment opportunities and motivations for the unemployed, deprived farmers and fishermen, and the young unskilled workers who dropped out. The government pays all expenses and allowances for the trainees. In addition, the MOL supports training and/or facility expenses if employers provide vocational training for the elderly and/or improve the working conditions and facilities to employ them.

This compulsory in-plant training system based on the Training Levy principle was designed at an initial stage of industrial development to concentrate on the basic training for the entry level workforce. Therefore, it should be changed to accommodate a new economic environment, especially in the period of structural adjustment and industrial restructuring. To cope with these emerging needs, the government implemented in 1995 the Employment Insurance System (EIS) which consists of various programmes.

One of the goals of EIS was to activate various vocational training programmes in the private sector on a voluntary basis to accommodate new economic developments. For instance, a part of EIS called "Vocational Ability Development Activities" that consists of "employment security activities" and "unemployment benefits", provides support to those employers who attempt to help the employed or prospective workers acquire necessary skills and knowledge.

### **Participation of private firms in the school-industry partnership system**

Co-operative education programmes in Korea started with the enactment of the Industrial Education Enhancement Act in 1963, which was recently revised in 1995. It requires all students in vocational education institutes to complete on-site training for the period of one to twelve months before graduation.

In the past, the co-operative programmes between schools and industries were hampered by the lack of proper training capacity of plants, qualified special-

Table 9. **Differences between “2 + 1 system” and the previous system**

| Classification       | Previous system                                                                                                                                                    | 2 + 1 system                                                                                                           |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Operating method     | <ul style="list-style-type: none"> <li>– Three-year study at school and 1-6 months practice at industrial sites</li> <li>– Practice as early employment</li> </ul> | <ul style="list-style-type: none"> <li>– Two-year study at school and one-year practice at industrial sites</li> </ul> |
| Educational contents | <ul style="list-style-type: none"> <li>– Theory and concept-oriented</li> </ul>                                                                                    | <ul style="list-style-type: none"> <li>– Skills and job-performance oriented</li> </ul>                                |

Source: Ministry of Education/KEDI (1996), *The Korean Education System, Draft Background Report*.

ists to train student apprentices, and inadequate curricula. In addition, those students who participated in the programmes lacked enthusiasm about getting practical experience in industry. Another serious problem was the discrepancy between school curricula and actual training at industrial sites. For these reasons, co-operative education failed to achieve a meaningful integration of academic study and work experiences.

Faced with these problems in the school-industry co-operation programmes, the MOE adopted a new system called “the Technical High School 2 + 1 System”, which is equivalent to a dual vocational training system. It is intended to reinforce the technical aspect of education in technical high schools by combining two years of study at school with one year of on-site training in industries. This system is recognised as a landmark development in the history of vocational and technical education in Korea. Approximately 3 000 technical high school students participated in this system in 1994, and the number reached 10 000 in 1995. It is expected not only to upgrade the quality and adaptability of the workforce through substantial field experiences at industrial sites, but also to activate the participation of private firms in the school-industry co-operation system (see Table 9).

## **LIFELONG EDUCATION: ADULT AND CONTINUING EDUCATION**

### **NEW AWARENESS OF LIFELONG LEARNING SOCIETY**

Korean lifelong education came into bloom after the liberation from Japan in 1945. Adult and continuing education in 1950s was confronted with a critical task of eradicating illiteracy among 78 per cent of the population. This unhappy situation was largely due to the deprivation of the Korean language for 36 years under the Japanese colonial rule. To improve this situation, the government began to carry out a national literacy movement on a large scale, which proved to be effective. When the five-year literacy plan was completed in 1958, the illiteracy rate was reported to drop to 4.1 per cent. A considerable number of civic educators and university students also initiated literacy movements.

The “Saemaul Movement” (New Community Movement) in 1960s and 1970s was a major resource of lifelong education aimed at cultivating manpower and developing the community.

From the 1980s to the present, as society has become more industrialised and developed, lifelong education has drawn more attention. The government has taken a series of actions to encourage adult and continuing education activities. In view of the important role of lifelong education, provisions have been added to the Constitution which hold the government responsible for all necessary support for the promotion of lifelong education. In this connection, legislative actions were taken, culminating in the enactment of the Pre-school Education Promotion Law and the Adult and Non-formal Education Act in 1982. As a consequence, adult and continuing education has grown tremendously, both in quantitative and qualitative terms. Many different programmes in adult and continuing education have been developed. In particular, adult and continuing education in leisure and culture has flourished with economic progress.

To realise the idea of lifelong learning, the PCER proposed diverse policy measures for “Open-Learning Society”. Following this reform proposal, the “Nation-wide Lifelong Learning Campaign”, intended to introduce the public to

the concept of lifelong learning, was initiated by the co-operative learning community, including the mass media, the government and NGOs.

The government began to establish the framework of adult and continuing education which included composing an on-line database, diffusing related information to the interested individuals and institutions, building the new educational facilities, training the adult education specialists, securing community volunteers, increasing financial investment, providing incentives for participation, and revising related laws.

Many Korean adults, including senior citizens, are now actively participating in various learning activities. Due to the expansion of lifelong learning opportunities and the public participation, the social awareness of lifelong learning is now pervasive.

### **LIFELONG EDUCATION OPPORTUNITIES**

An open-learning society is based on the premise that education will be available to each and every citizen throughout their lifetime. This means all types of formal and non-formal educational institutions must be open to every citizen. To realise the lifelong learning society, more diversified adult and continuing education programmes should be provided.

Currently opportunities for lifelong learning in Korea are increasing and becoming more diversified, especially in the area of adult and continuing education as follows:

- university extension education;
- school-based adult and continuing education;
- supplementary schooling;
- proprietary learning academy education;
- in-service training;
- NGO-based adult and continuing education;
- mass media adult and continuing education;
- adult and continuing education at cultural institutes; and
- adult education for women and the elderly.

However, the ever increasing demand for lifelong learning will require more institutions.

To expand the opportunities for adult and continuing education, the establishing of provincial and local public lifelong learning centres, which will provide various programmes free of charge, is now being considered. These centres are expected to be of particular value for the educationally disadvantaged, such as

low-income families, residents of rural and remote areas, women, and elderly. The Education Reform Plan proposed part-time registration at universities and colleges for adult learners and a university programme tied to job sites for more learning opportunity. These policy measures have encouraged the establishment of diverse institutes in adult and continuing education, such as university lifelong learning centres, business in-service training centres, mass media culture centres, library and museum civic classes, women's welfare centres, institutes for senior citizens, and others.

## **LIFELONG EDUCATION PROGRAMMES**

### **Establishment of adult and continuing education database**

To improve the quality of adult and continuing education, a systematic and comprehensive analysis of the needs and demands of adult learners is needed. On the basis of such an analysis, the appropriate curriculum and programmes are to be developed.

The "Database in Adult and Continuing Education" is now being developed to provide diverse programmes for different groups of lifelong learners. It is mainly being initiated by the NGOs for adult education in co-operation with the government and business firms in educational information networks.

To enhance the quality of adult and continuing education, the following measures have been implemented; new innovative programmes, the recruitment of professional adult educators and specialists, the development of strategic courses, the introduction of advanced management skills and the provision of high-tech equipment and materials.

### **Establishment of the "comprehensive lifelong learning centre"**

To insure the professionalism and systematic execution of lifelong and adult education, the government plans to establish the "National and Regional Comprehensive Lifelong Learning Centre".

This centre is expected to: conduct surveys; research adult and continuing education; provide training and re-training of professional staff and faculty; develop the curriculum model and programmes, learning materials and strategies; establish the national information network and database; and publicise various lifelong learning activities. This centre is also expected to provide professional advice and educational resources to local and private lifelong institutes on adult and continuing education activities.

## **LIFELONG EDUCATION SPECIALIST**

To enhance the quality of adult and continuing education, the pre-service and in-service training for specialists in the field is being implemented according to the “Adult Education Specialist Training Programme” as outlined by the Adult Education Act of 1982.

It is currently at an experimental stage in developing the concrete pre- and in-service training programmes for specialists and instructors in adult education. Some of the reform plans are as follows:

- for effective pre- and in-service training, the introduction of authorised training institutes in adult and continuing education should be considered;
- for the in-service training of adult education teachers, a standard curriculum of adult and continuing education, as well as regular in-service training opportunities should be provided to training institutions;
- for the effective implementation of specialist training programmes, the government should take necessary actions, such as the revision of the Adult Education Act and the establishment of the National Adult Education Training Institute.

## **DISTANCE LIFELONG EDUCATION**

### **Air and correspondence high schools**

Air and Correspondence High School (ACHS) is open to working adolescents, industrial workers, housewives and others who have missed an opportunity to continue formal education, for economic or personal reasons. Applicants are selected not through an examination, but through a screening of their dossier, according to the criteria established by the regional office of education.

As of 1995, there were 43 schools across the nation, with a total enrolment of 15 000. Due to the universalisation of regular high schools, the enrolment at ACHS is rapidly decreasing. To solve this problem, ACHS is currently considering offering special courses for adult learners as a part of extracurricular education.

### **Korean Air and correspondence university**

The Korean Air and Correspondence University (KACU) was established in 1972, in order to provide higher education as a part of lifelong education, to expand the educational opportunities for the overall improvement of the national intellectual level and to offer opportunities to acquire knowledge necessary in the age of rapid development. The KACU first offered two-year post-secondary courses, and has been expanded to a university with 16 departments, with a total enrolment of 200 000.

The instruction at the KU takes various forms: self-study with the help of programmed textbooks, broadcast and in-class lectures, home assignments and correspondence courses. Lectures are broadcast on the Educational Broadcasting System (EBBS). Twelve regional learning centres and 27 city and county learning centres are established for those who live in the countryside.

The majority of the enrolled students are industrial workers, government employees, soldiers, teachers, and so forth. It can be said that the KU is contributing to the promotion of scholarly attainments of the citizens and in-service training. Currently, the KU is trying to expand its education programmes by developing non-degree courses for adults students and the general public.

### **Distance adult education**

For the diversity and effectiveness of adult and continuing education, the distance education system needs to be established. Currently, many adult learning centres plan to utilise high-tech media, such as cable TV, personal computers, VTR, CD-ROM, and Video-on-Demand. These media are expected to meet diverse educational needs.

Distance education makes it possible to receive adult and continuing education at home and local education centres. In order to promote the information education, the “National Multimedia Centre for Education” is being established.

### **ACCREDITATION IN LIFELONG EDUCATION**

Accreditation in adult and continuing education is another way of recognising lifelong learning as a viable counterpart of institutionalised formal education. The Independent Bachelor’s Degree Programme was introduced to stimulate adult and continuing education. In 1990, the Ministry of Education institutionalised granting a bachelor’s degree to the self-directed learners not enrolled at higher education institutions but who had passed a series of national examinations administered by the National Board of Educational Evaluation, an institution that administers the national scholastic aptitude test for high school graduates.

Another innovation to enhance the accreditation of adult and continuing education is the “The Credit Bank System (CBS)”. The CBS will allow individuals to take courses and accumulate credits until the requirements for a bachelor’s degree or a national license are fulfilled. As an accreditation system for lifelong learning, the CBS is expected to take effect in March of 1997.

## **FUTURE PROSPECTS: KOREAN EDUCATION IN THE 21st CENTURY**

The Korean government has been preparing education reform proposals for the 21st century through the Presidential Commission on Education Reform (PCER) founded in February 1994. The Commission presented a series of reports entitled “Educational Policy Tasks for Establishing the New Education System” which were submitted to the President on May 31, 1995, February 9, 1996 and 20 August 1996. The Education Reform Proposals (ERP) of the PCER are comprehensive and future-oriented government policy for the 21st century. The main ideas of ERP are summarised in this chapter.

The Commission reported that information society, globalisation, and localisation would be the main characteristics of the 21st century. This perspective contextualises the directions of education reform. The ultimate goal of education reform is to enable everybody to learn what one wants to learn regardless of time and space. “Lifelong Learning and Open Education” is the ideal the PCER reports put on the top of the reform agenda.

In order to meet the requirements of a new Korea in the twenty-first century, education must change in the following aspects:

- all education must be student-oriented;
- schools and curriculum must be diversified to provide more choices in learning experiences;
- there must be accountability to school management;
- equal opportunity of education and freedom of choice must be guaranteed;
- new technology must be adopted to facilitate continuing education; and
- the quality of education has to be improved.

### **DIRECTIONS OF EDUCATION REFORM**

In the past, educational policies were formed for the convenience of the government, school administration and teachers. However, in the 21st century,

education must be restructured to be more consumer-oriented. Policies are expected to reflect the needs and demands of the students.

Free from uniform national curricula, educational programmes and schools should be diversified to allow individual students more choices and to develop their potential to the fullest extent. School management should be renovated to allow more autonomy and accountability as overall deregulation proceeds. There will be more opportunities for parents, students, teachers and school officials to participate in school administration and to improve school environment.

There must be equal opportunity of education for all types of students, regardless of their gender, economic background, or physical condition. Moreover, freedom of choice should be guaranteed so that individual students may choose programmes that are likely to maximise their potential.

Continuing education must be systemised to accommodate the increasing demands for more diverse programmes from those who once lost educational opportunities or who desire self-improvement. The use of multimedia in many of the continuing education programmes will make it possible to overcome space and time restrictions.

The quality of education must be improved, which requires better educational policy, more money and more expertise. Policies should eliminate the inefficiency and irrationality in the current education system. More money needs to be allocated for schools. In addition, there must be qualified and well-trained teachers.

## **EDUCATION IN THE 21st CENTURY**

EDUTOPIA, where education is available to anyone that desires it, at any time and anywhere, is the ultimate goal of the Education Reform Proposals. The ERP suggests that the following policy objectives should be implemented:

- creating an education system that is responsive to the demands of society and individuals;
- improving the quality of education;
- helping students learn skills and knowledge in preparation for a global society; and
- improving support for and accountability in education.

ERP features the Korean education in the 21st century as follows:

## **Education system responsive to the demands of society and individuals**

### ***Infrastructure of continuing education***

Pertinent accredited courses offered by formal educational institutes or non-formal training institutes will be acknowledged as equivalent to college credits towards a bachelor's degree. Colleges and universities will provide continuing education programmes for non-traditional students, by making available their facilities, equipment, faculty, etc. Opportunities for higher education in various fields of employment will be made available for those employed. Primary and secondary schools will play a role at the centre of education and culture for adult education in each community by opening their facilities to community residents.

Programmes for adults, such as vocational and technical training, general culture and language courses, courses on parenting and in-service training for teachers will be made available regardless of students' gender, age, or residential area. In order to expand the opportunities for adult and continuing education, local lifelong learning centres will be established.

Televisions, radios, personal computers, CATV's, Video on Demand (VOD) and video-conferencing will be utilised to cater educational services to students in remote areas and, in part, to counter a lack of sufficient funding for diversified, multiple educational programmes. Virtual universities will be operated and schools will have state-of-the-art buildings and digital libraries.

The National Multimedia Centre for Education was established to facilitate an open learning society. The purposes of this institution are to develop multimedia software for school education and vocational training, to collect and circulate electronic learning materials, to transform printed learning materials into an electronic data base, to locate sources of data and information for education and training, to plan uses of telecommunication technologies such as satellite, CATV, and the Information Super-Highway, to train teachers through in-service training on multimedia education, and to co-ordinate inter-ministry efforts for distance education.

### ***Reform of vocational and technical education***

Certification and recognition systems will be restructured to confer a national certificate to the graduates of accredited vocational or technical schools. Moreover, financial support will be made available to such school on the basis of their institutional qualifications.

The curriculum of vocational and technical high schools will be changed to provide more practical training. The "credit bank system" will be also introduced to vocational and technical high schools, open industrial colleges, vocational junior colleges, job training centres, the Korean Air and Correspondence

University, and in-plant colleges. Any accredited courses offered by these institutions will be credited toward earning college credits and eventually a bachelor's degree.

Vocational junior colleges that are in good standing will be given priority in exercising autonomy in making decisions regarding student admission policies, curriculum, training programmes, etc.

The educational reforms in this area include the establishment of the "New College". The New College is envisioned as a higher education institute for various fields of vocational and technical education, with two to four years of programmes depending on the field. Distance education, on-the-job learning, and the credit bank system are the three pillars of the envisioned New College. The New University is to have a dual system consisted of a central university and learning centres located at companies or industrial complexes.

Off-the-job training for employees will be enhanced, and various career education programmes will be systematically developed. The Education Reform Proposals recommends that employers focus more on the qualification and abilities of an individual, rather than school and college diplomas.

### ***Guaranteeing student choice***

The student screening system will be revised gradually. According to ERP, under the "equalisation policy", applicants to middle and general high schools can select one of the several schools in their residential district, according to their preference. As of 1998, "Independent Private High Schools" will be established, which will operate without any government subsidy. These independent high schools will determine their own admission criteria and tuition fees.

It will be also made easier for students to transfer to another high school in the same residential district, so long as the quota permits.

A comprehensive school evaluation system will be introduced to primary and secondary education and the evaluation report will be an important factor in determining administrative and financial support from the government. This is intended as part of an effort to improve the quality of education by inducing competition among schools, since higher quality would merit more support from the government.

### **Improvement of the quality of education**

#### ***Promotion of early childhood education***

Efforts will be made to provide early childhood education in public schools for all children of five years of age. Moreover, a kindergarten curriculum will be

organised as preparation for the primary school curriculum. While at first public education will be neither compulsory nor free, kindergarten should be free, beginning with rural and low-income urban areas. Childcare centres will be made to provide early educational curriculum, rather than act as mere baby-sitting services.

Various educational programmes and learning materials for young children need to be developed and made available to kindergartens and childcare centres. Curriculum will focus on activity-oriented programmes and cultivate basic manners and habits such as respecting the elderly, orderly conduct, table etiquette, cleaning-up after play, etc. In addition, parenting education will be introduced or reinforced to guide parents in raising and educating their children properly at home.

### ***Improvement of school curriculum***

In primary and secondary schools, required courses will be reduced and the number of electives will be increased. This change is intended to allow individual students to choose from various courses, according to their aptitude and ability. The number of required courses at high schools will be reduced and the level of difficulties of these courses will be also adjusted. While courses for the tenth grade consist of required courses, more elective courses will be available for eleventh and twelfth grades. To meet the increasing demand for teachers, double-majored teachers and part-time lecturers will no doubt be hired, in addition to the regular teaching staff.

Required subjects, such as Korean, mathematics and English, will be reorganised for different levels of difficulty. Under the reorganised curriculum, students will be able to take courses by their achievement level rather than by their school grade.

The School Records (SR) was introduced to register both academic and non-academic achievement, such as volunteer work, extra-curricular activities, sports, personality, etc. The SR system will provide a broader picture of the achievement and capability of individual students to assure the more informed admission decision.

More special schools for the handicapped are under construction and individualised programmes are being developed according to the types and levels of disability. Special education programmes will be also introduced in regular schools. In addition, efforts will be made to discover gifted children at an earlier age and to provide them with adequate programmes to further develop their talents at regular and independent institutes.

### ***Teacher training and staff development***

In order to improve the quality of teachers, teachers' training institutions will be upgraded to graduate school level. An accreditation system will be applied to the teacher training institutions. Colleges and universities with excellent evaluations will receive administrative and financial support from the government. Other teacher training institutions, which do not receive fair marks, will be encouraged to convert to other fields. As the curriculum becomes more diversified with more electives, a double major system will be introduced.

Teachers will be required periodically to take in-service training programmes in order to maintain and improve their professionalism. There will be diverse in-service training programmes for teachers, to choose that which would best serve their interests and purposes. These programmes will be available to teachers in remote areas through multimedia.

To improve the quality of teachers, the compensation and benefit scheme will be improved. Incentives in terms of payment and promotion should be available to competent teachers. In addition, those who teach extra hours should be paid a bonus. The "Special Research Teacher" programme is to identify a number of teachers with excellent evaluations and to award them either a short short-term overseas study, or a research grant in their fields.

### ***Professional graduate schools and college deregulation***

In order for colleges and universities to be competitive, the strict government regulation on the establishment of universities, student quotas, academic affairs, and university management will be relaxed. Professional graduate schools in the field of law, medicine and theology will be established. Independent graduate schools without undergraduate programmes will also be established. A more efficient college entrance examination system will aid the normalisation of secondary education.

Instead of obtaining government approval, colleges and universities can be established if they meet certain criteria. The criteria for establishing a college includes facilities, equipment, faculty, and financial status, which vary according to the characteristics of the intended colleges and universities. In lieu of approval, the government will monitor the colleges and universities' observance of their own mandatory charters. A college charter will detail and explain the colleges' or university's goal, programmes, management (such as the faculty recruitment policy), student quota policy, financial management, research and academic achievements of the faculty, academic affairs management, information on the alumni network, etc.

Individual colleges and universities will be allowed to exercise discretion in setting admission quota and managing academic affairs. It is recommended that colleges and universities reduce the number of required credit hours for a degree so that more students can be induced to take double or multiple majors or to undertake an interdisciplinary study.

Professional training in law, medicine and religion is to be upgraded to a graduate-school level to meet the growing demands for professionals. Independent graduate schools, without undergraduate programmes, may be established to train specialists in such areas as telecommunication, science, technology, foreign languages, design, etc.

While private colleges and universities will have their own admission policy, national and public colleges and universities have to observe the national guideline for college admission. The national guideline requires that the SR must be used as one of the main criteria of student-selection.

### ***Education and research conditions in colleges and universities***

The ERP proposes that the Arts and Science Information Centre become a resource of information and data for researchers and professors. The centre will have access to all of the college and university libraries in Korea, and to an international electronic network of data and information. Funding will be made available to the researchers and professors who actively undertake joint research projects with distinguished foreign research institutions or scholars. Publication of research papers in internationally renowned journals will be encouraged and given financial support.

### **Education in the global society**

#### ***International exchanges***

Educational policies will be developed to provide more courses and programmes on the culture and history of other countries and to encourage academic and research exchanges. More overseas study and educational tour programmes for college students with foreign universities are needed. Credits earned through these programmes will be counted towards a bachelor's degree. In addition, there will be financial support to facilitate international exchanges of data and information through Internet, satellite communications, etc.

The establishment of training facilities and graduate schools of area studies will be promoted, and area studies at the existing research institutions will be encouraged. More Korean language courses will be available for foreign students. Colleges and universities which enrol a sufficient number of foreign students can establish a foreign students' affairs office to assist them.

***Identity of Korean culture***

Primary and secondary school curricula must reflect Korean culture and values to foster a sense of national pride and identity in young students. Educational programmes will be made available via satellite communication to the interested foreigners and Koreans overseas to introduce Korean culture.

***Improvement of foreign language education***

Proficiency in foreign languages is an asset in an era of a globalisation. Toward that end, the English language will be added to the curriculum for the third grade of primary schools. Secondary school students will now be able to select a second foreign language of their choice, rather than having their schools choose it. Instruction will focus more on speaking skills than grammar. In addition, the College Scholastic Ability Test will also evaluate the speaking skills of students. English language teachers are thus encouraged to conduct classes only in English.

In line with the English only policy in English classes, native English speakers are likely to be employed as instructors by regular schools. In-service training programmes for Korean foreign language teachers will be held abroad to help improve their English language skills. Native Korean-speaking teachers of English as a foreign language will be tested on their English language skills. Moreover, CATV channels will be installed in classrooms for foreign language instruction.

***Educational administration and accountability******Educational administration at the local level***

With the election of the governors and mayors of local governments in June 1995, decentralisation in the administration of local education was expected to be accelerated. Recently, PCER recommended that the Provincial Board of Education have the power to decide and execute the local education policy from 1998. Hence, the Provincial Office of Education will disappear, and the superintendent will be a chairman of the Board of Education.

***Self-governing system at the school level***

In response to the demands of schools and communities, a School Management Committee (SMC), responsible for school management, was established at all of the national and public primary and secondary schools. The SMC deliberates on school budget, account balance and other financial issues as well as other important school regulations, including the school charter. The SMC manages the School Development Funds and community donations, and also serves as an

advisory body to the school principal on matters related to school operation. However, private schools are encouraged to have a SMC, though the role of the SMC is limited to that of an advisory body, even if the private school establishes it.

### ***Educational financing***

As former President Kim Young Sam promised, the public education budget must increase to a minimum of 5 per cent of the GNP by 1998. In order to achieve this goal, education and local taxes will be increased.

At the same time, local governments will be given more financial responsibility for primary and secondary education in line with the decentralisation of the government. The central government will continue to increase its financial support for colleges and universities in a more revolutionary manner.

### ***Accountability through evaluation***

In order to improve accountability of educational institutions, a comprehensive evaluation system will be introduced and the results will be available to the general public. The National Curriculum and Assessment Institute will be established to conduct evaluations, as well as to develop and manage the national curriculum and the credit bank system.

In order to mediate, regulate, and solve the various complications involved in running private schools, a Private School Compilation Regulation Committee will be introduced. The University Council will deliberate on important policies related to university development, including teaching and research affairs. Financial and fiscal arrangements for the private school will be strengthened. The governmental financial support will be matched according to the results of the school evaluation.

### ***Reformation of educational law system***

The legal foundation of education will be reformed to secure the rights of students, parents, and teachers and to realise free democratic education as embodied in the Constitution. For this purpose, the current Education Law will be divided into the Basic Education Law, the Primary and Secondary Education Law, and the Higher Education Law. In addition, the Adult and Continuing Education Law will be renamed the Lifelong Learning Law.

*Annex*

**BACKGROUND TABLES**

Table A1. **Number of enrolments in private schools**  
(number and %)

|      | Primary school |                 | Middle school |                   | High school   |                   |               |                   |               |                     | University and college |                   |
|------|----------------|-----------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|---------------------|------------------------|-------------------|
|      | Schools        | Students        | Schools       | Students          | Academic      |                   | Vocational    |                   | Total         |                     | Schools                | Students          |
|      |                |                 |               |                   | Schools       | Students          | Schools       | Students          | Schools       | Students            |                        |                   |
| 1962 | 22<br>(0.4)    | 9 792<br>(0.2)  | 438<br>(39.0) | 267 270<br>(40.8) | 167<br>(49.4) | 98 998<br>(49.7)  | 85<br>(30.0)  | 36 417<br>(29.3)  | 252<br>(40.6) | 135 415<br>(41.8)   | 36<br>(75.0)           | 82 515<br>(70.6)  |
| 1967 | 96<br>(1.8)    | 49 263<br>(0.9) | 575<br>(43.8) | 446 806<br>(49.0) | 231<br>(56.0) | 150 317<br>(58.0) | 134<br>(36.4) | 76 351<br>(41.8)  | 365<br>(46.7) | 226 668<br>(51.3)   | 54<br>(79.4)           | 100 349<br>(77.8) |
| 1972 | 85<br>(1.4)    | 67 651<br>(1.2) | 718<br>(38.5) | 727 719<br>(43.2) | 220<br>(54.6) | 224 244<br>(60.7) | 221<br>(41.0) | 184 714<br>(51.3) | 441<br>(46.8) | 408 958<br>(56.0)   | 54<br>(78.4)           | 126 247<br>(79.1) |
| 1977 | 80<br>(1.2)    | 68 913<br>(1.2) | 718<br>(36.1) | 871 926<br>(39.7) | 373<br>(52.1) | 481 649<br>(60.6) | 227<br>(45.5) | 291 826<br>(52.5) | 600<br>(49.4) | 773 475<br>(57.3)   | 57<br>(78.1)           | 172 695<br>(71.8) |
| 1982 | 76<br>(1.2)    | 73 385<br>(1.3) | 746<br>(33.7) | 932 857<br>(35.8) | 416<br>(51.4) | 643 506<br>(60.2) | 307<br>(49.0) | 499 355<br>(58.6) | 723<br>(50.3) | 1 142 286<br>(59.5) | 76<br>(78.4)           | 520 774<br>(78.8) |
| 1987 | 77<br>(1.2)    | 69 567<br>(1.5) | 715<br>(29.5) | 796 557<br>(30.0) | 538<br>(52.2) | 853 423<br>(61.0) | 278<br>(46.8) | 509 559<br>(60.6) | 816<br>(50.2) | 1 316 268<br>(60.9) | 80<br>(77.7)           | 743 957<br>(75.2) |
| 1992 | 76<br>(1.2)    | 69 258<br>(1.5) | 703<br>(27.7) | 619 161<br>(26.5) | 579<br>(54.7) | 826 374<br>(63.0) | 299<br>(44.1) | 489 894<br>(60.3) | 878<br>(50.6) | 1 316 268<br>(61.0) | 97<br>(80.2)           | 809 900<br>(75.6) |
| 1995 | 76<br>(1.3)    | 62 563<br>(1.6) | 697<br>(26.0) | 596 739<br>(23.0) | 582<br>(54.5) | 779 369<br>(62.5) | 328<br>(43.0) | 516 461<br>(56.7) | 910<br>(49.7) | 1 294 829<br>(60.0) | 105<br>(80.0)          | 891 794<br>(75.1) |

Source: Ministry of Education/KEDI (1996), *The Korean Education System, Draft Background Report*.

Table A2. **Students by school level**  
(thousand persons)

| Year | Kindergarten | Middle school | High school | Junior college | College and university |
|------|--------------|---------------|-------------|----------------|------------------------|
| 1970 | 22           | 1 318         | 590         | 33             | 146                    |
| 1980 | 66           | 2 471         | 1 696       | 165            | 403                    |
| 1990 | 414          | 2 275         | 2 283       | 323            | 1 040                  |
| 1995 | 529          | 2 481         | 2 157       | 569            | 1 187                  |

Source: Ministry of Education/KEDI (1996), *The Korean Education System, Draft Background Report*.

Table A3. **Number of class hours per year by school level and grade**

| School level    | Primary school |     |     |     |       |       | Middle school |       |       | High school |   |   |
|-----------------|----------------|-----|-----|-----|-------|-------|---------------|-------|-------|-------------|---|---|
| Grade           | 1              | 2   | 3   | 4   | 5     | 6     | 1             | 2     | 3     | 1           | 2 | 3 |
| Number of hours | 790            | 850 | 952 | 986 | 1 054 | 1 054 | 1 156         | 1 156 | 1 156 | (204 units) |   |   |

Source: Ministry of Education/KEDI (1996), *The Korean Education System, Draft Background Report*.

Table A4. **Comparison of class hours of Korea with those of OECD Member countries**

| Country       | 4th grade | 9th grade |
|---------------|-----------|-----------|
| Korea         | 986       | 1 156     |
| Belgium       | 900       | 1 090     |
| Canada        | 927       | 999       |
| France        | 878       | 1 047     |
| Germany       | 679       | 878       |
| Iceland       | 585       | 743       |
| Netherlands   | 1 019     | 1 198     |
| Switzerland   | 874       | 1 108     |
| United States | 1 001     | 1 032     |

Sources: Ministry of Education (1992), *The Sixth National Curriculum*; OECD (1995), *Education at a Glance: OECD Indicators*.

Table A5. **Average class size and number of over-sized schools**

| Classification                | Number of schools | Average class size (number of students) | Over-sized schools |            |              |
|-------------------------------|-------------------|-----------------------------------------|--------------------|------------|--------------|
|                               |                   |                                         | 30-45 classes      | 45 or more | Total (%)    |
| Primary                       | 5 900             | 37.7                                    | 752                | 660        | 1 412 (23.9) |
| Middle                        | 2 645             | 48.9                                    | 710                | 50         | 760 (29.0)   |
| Academic high                 | 1 046             | 47.4                                    | 361                | 62         | 423 (40.4)   |
| Vocational and technical high | 738               | 46.8                                    | 144                | 93         | 237 (32.1)   |
| Total                         | 10 329            | 35.0                                    | 1 967              | 865        | 2 832 (27.4) |

Source: Ministry of Education (1994), *Statistical Yearbook of Education*.

Table A6. **Average number of students per teacher by school level**

| Classification | Kindergarten | Primary | Secondary |
|----------------|--------------|---------|-----------|
| Korea          | 21.0         | 29.0    | 23.3      |
| OECD average   | 20.2         | 17.4    | 13.8      |

Sources: KEDI (1994), *Educational Indicators in Korea*; OECD (1995), *Education at a Glance – OECD Indicators*.

Table A7. **Number of kindergarten children and enrolment rate by age**

| Classification     |               | 1980   | 1985    | 1990    | 1994    | 1995    |
|--------------------|---------------|--------|---------|---------|---------|---------|
| Number of children | 3-4 years old | 5 763  | 66 503  | 131 070 | 236 359 | 251 994 |
|                    | 5 years old   | 60 665 | 285 964 | 282 231 | 273 329 | 277 058 |
|                    | Total         | 66 433 | 352 367 | 413 301 | 509 688 | 529 052 |
| Enrolment rate     | 3-5 years old | 4.0%   | 21.1%   | 31.0%   | 27.2%   | 27.1%   |
|                    | 5 years old   | 7.3%   | 34.2%   | 41.5%   | 44.3%   | 44.4%   |

Source: Ministry of Education (1995), *Kindergarten Status*.

Table A8. **Types of higher education institutions**

| Type                           | Degrees offered | Number of institutions | Note                                                                                     |
|--------------------------------|-----------------|------------------------|------------------------------------------------------------------------------------------|
| Colleges and universities      | B.A., B.S.      | 132                    | Four years (six years in medicine)                                                       |
| Teachers' colleges             | Masters Ph.D    |                        | Graduate schools attached                                                                |
| Voc. junior colleges           | B.A.            | 11                     | Four years                                                                               |
| Miscellaneous schools          | Certificates    | 145                    | 2-3 years                                                                                |
|                                | No degree       | 22                     | No degree offered, but regarded to be equivalent to graduation of college and university |
| Korea National Open University | B.A., B.S.      | 1                      | Four years                                                                               |
| Polytechnics                   | B.S.            | 17                     | Four years                                                                               |

Source: Ministry of Education/KEDI (1996), *The Korean Education System, Draft Background Report*.

Table A9. **Trends of employment rates of higher education graduates**

(percentage)

|      | Voc. junior colleges |        | Colleges and universities |        | Graduate schools |        |
|------|----------------------|--------|---------------------------|--------|------------------|--------|
|      | Total                | Female | Total                     | Female | Total            | Female |
| 1970 | 83.5                 | 78.4   | 70.6                      | 50.5   | 94.1             | 80.8   |
| 1975 | 41.3                 | 35.6   | 71.8                      | 57.8   | 85.1             | 66.0   |
| 1980 | 79.0                 | 75.0   | 73.0                      | 55.2   | 72.8             | 63.4   |
| 1985 | 57.2                 | 49.9   | 52.1                      | 49.9   | 74.7             | 61.5   |
| 1990 | 71.8                 | 68.2   | 55.0                      | 39.7   | 69.5             | 56.8   |
| 1994 | 68.8                 | 65.6   | 56.4                      | 44.5   | 74.3             | 60.1   |

Source: KEDI (1994), *Educational Indicators in Korea*.Table A10. **Growth in higher education**

|      | Number of institutions |                             | Enrolments         |                             |
|------|------------------------|-----------------------------|--------------------|-----------------------------|
|      | Total*                 | Colleges and universities** | Total*             | Colleges and universities** |
| 1945 | 19 (1.00)              | —                           | 7 819 (1.00)       | —                           |
| 1950 | 55 (2.89)              | —                           | 11 358 (1.45)      | —                           |
| 1955 | 74 (3.89)              | —                           | 84 996 (10.87)     | —                           |
| 1960 | 85 (4.47)              | —                           | 101 014 (12.92)    | —                           |
| 1965 | 162 (8.53)             | 70 (1.00)                   | 141 636 (18.11)    | 105 643 (1.00)              |
| 1970 | 168 (8.84)             | 71 (1.01)                   | 201 436 (25.76)    | 146 414 (1.39)              |
| 1975 | 204 (10.74)            | 72 (1.03)                   | 297 219 (38.01)    | 208 986 (1.98)              |
| 1980 | 236 (12.42)            | 85 (1.21)                   | 615 452 (78.71)    | 402 979 (3.81)              |
| 1985 | 255 (13.42)            | 100 (1.43)                  | 1277 828 (163.43)  | 931 884 (8.82)              |
| 1990 | 258 (13.58)            | 107 (1.53)                  | 1 466 862 (187.60) | 1 040 166 (9.85)            |
| 1995 | 327 (17.21)            | 131 (1.87)                  | 2 343 894 (299.77) | 1 187 735 (11.24)           |

\* Teachers colleges are excluded.

\*\* Polytechnics universities and Korea National University are excluded.

Sources: KEDI (1994), *Educational Indicators in Korea*; National Board of Education Evaluation (1994), *Handbook of Education Statistics*.Table A11. **Number of higher education students per 10 000 inhabitants**

|                                                              | 1965   | 1970   | 1975   | 1980   | 1985    | 1990    | 1994    |
|--------------------------------------------------------------|--------|--------|--------|--------|---------|---------|---------|
| Population (A)<br>(in thousands)                             | 28 794 | 31 466 | 34 707 | 37 436 | 40 448  | 42 793  | 44 056  |
| Number of higher education<br>students (B)<br>(in thousands) | 141.6  | 201.4  | 318.7  | 647.5  | 1 455.8 | 1 691.4 | 2 099.7 |
| B/A × 10 000                                                 | 49.5   | 63.9   | 91.9   | 173.0  | 360.0   | 395.4   | 476.6   |

Sources: Ministry of Education (1994), *Statistical Yearbook of Education, 1965-1994*; Economic Planning Board, *Korean Statistical Yearbook, 1965-1994*.

Table A12. **Number of schools and students in vocational education**

|                               | Schools |       |       | Students  |           |           |
|-------------------------------|---------|-------|-------|-----------|-----------|-----------|
|                               | 1993    | 1994  | 1995  | 1993      | 1994      | 1995      |
| <b>High school level</b>      |         |       |       |           |           |           |
| General high school           | 1 039   | 1 046 | 1 068 | 1 237 182 | 1 209 330 | 1 246 427 |
| Vocational high school        | 718     | 738   | 762   | 832 018   | 851 495   | 911 453   |
| <b>Higher education level</b> |         |       |       |           |           |           |
| Vocational junior college     | 128     | 135   | 145   | 456 227   | 506 806   | 569 820   |
| Polytechnic                   | 12      | 14    | 17    | 83 904    | 101 412   | 120 670   |
| 4-year university             | 127     | 131   | 131   | 1 092 464 | 1 132 437 | 1 187 735 |

Source: Ministry of Education, *Statistical Yearbook of Education*, 1993, 1994, 1995.

Table A13. **Number of trainees in vocational training**

|                      | 1992      | 1993      | 1994      |
|----------------------|-----------|-----------|-----------|
| Total                | 180 018   | 188 408   | 218 239   |
| Craftsman            | 178 864   | 184 034   | 213 005   |
| Public               | (26 131)  | (26 206)  | (31 671)  |
| In-plant             | (122 457) | (122 151) | (152 030) |
| Authorized           | (30 276)  | (35 677)  | (29 304)  |
| Multi-skilled worker | —         | —         | 961       |
| Technical master     | 594       | 352       | 286       |
| Instructor           | 560       | 4 022     | 3 987     |

Source: Ministry of Labour (1995), *White Paper on Labour*.

*Part Two*

## **EXAMINERS' REPORT**

## INTRODUCTION

In the light of the comprehensive mandate of the President's Commission, the Korean authorities requested that the scope of the OECD review should, cover the whole of the both the formal and informal education system,\* so that the education reform process might draw upon the accumulated experiences of OECD Member countries.

A preliminary Secretariat mission visited Seoul in January 1995 to have discussions with the government agencies that would be closely involved in the review, and with those who would be responsible for writing the Background Report. The examiners for the review were:

- William Renwick, Honorary Senior Research Fellow, Stout Research Centre, Victoria University of Wellington (Director-General of Education, New Zealand, 1975-88), Rapporteur;
- Torben Kornbeck Rasmussen, Director-General, Department of Higher Education, Ministry of Education, Copenhagen, Denmark; and
- Professor David Stern, Director, National Centre for Research in Vocational Education, Berkeley, California, United States.

Mr. Abrar Hasan, Head of Education and Training Division, participated in the review on behalf of the OECD Secretariat. Mr. Renwick and Mr. Hasan made a preliminary visit to Seoul from 20-24 August 1995 and had discussions in the Ministry of Education to arrange a schedule of visits and meetings for the examiners. They discussed the Background Report with research officers in KEDI, and visited institutions in Seoul to brief them on the purpose of the OECD review. The examiners and Mr. Hasan returned to Korea from 25 September-5 October, 1995 to conduct the review. Most of the meetings and visits took place in Seoul, with a three-day visit to Taegu and Kwangju for discussions with officials in the Provincial Education Office and visits to educational institutions.

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\* In the Examiners' report, the proposals for education reform refers to the May 1995 proposals as published in April 1996 by the Presidential Commission.

This review of education policy is timely for Korea. It should also be of considerable interest to all OECD Member countries. In our globalised world, it is not at all surprising that educational developments across industrialised countries have much in common, despite geographical factors or cultural traditions. Korean cultural traditions are such, however, that educational reform will retain a uniquely Korean character. Thus, the addition of Korea to the OECD will add an important new dimension to that experience.

The examiners should like to thank the Korean authorities, in particular the Ministry of Education and the Korean Education Development Institute for their vital contribution to the review, and for the frankness with which difficult and sensitive issues were raised and discussed. They should also like to extend their thanks to the many people who welcomed them and discussed their work and their concerns, answering questions with sincerity and open-mindedness, and to all those who helped them gain a better understanding of the situation and problems.

## KOREA: PAST, PRESENT, AND FUTURE

### THE HISTORICAL BACKGROUND

Korea has an unbroken history that is longer than that of any OECD country (the main source for this summary of Korean history is Ki-baik Lee, 1984). Among contemporary civilisations, only China has a longer continuous history. Koreans trace their ancestry from people who were living on the peninsula four or five thousand years ago. Their earliest recorded polity, Old Chosun, a political confederation of walled towns ruled by wangs (kings), with its capital at Pyongyang, dates from the fourth century BC. Various kingdoms in different parts of the peninsula rose and fell during the next thirteen centuries. At the end of the sixth century AD the three kingdoms of Koguryo, Silla, and Paekche were united in the Kingdom of Silla; and in 935 Silla was subdued by the Wang dynasty and became the Kingdom of Koryo. It was conquered in 1392 by Yi Song-gye, who established the Yi dynasty, moved the capital to Seoul, and re-named the state Chosun to commemorate the country's first name.

Proximity ensured that Korea would be remain open to Chinese influences. It was from China that Confucianism, Taoism, and Buddhism came in the fourth century AD. The Chinese writing system and Chinese technology in many fields, notably in celadon porcelain and pottery, and woodblock printing, provided the basis for the development of distinctive Korean achievements. In language, literature, and government, China was the primary foreign influence until the last decade of the nineteenth century.

Confucianism became the presiding influence on Korean life. The teachings of Confucius, further developed by generations of scholars, were ideally suited to an aristocratic form of society. Confucianism prescribed the moral duties of kings and their subjects, husbands and wives, parents and children, families, scholars and their disciples, and teachers and their pupils. These duties and obligations were not grounded in a religious vision but in authoritative analyses of how those who govern the affairs of daily life should do their duty, and how those who obey should respond.

The hall marks of effective governance, whatever its realm, were order, stability, and subordination. This required that harmonious relationships be

maintained between kings and their subjects, husbands and wives, fathers and sons, teachers and their pupils. These were based on proper conduct expressed in moral obligations of loyalty, respect, and fidelity.

Nurturing good relationships are at the heart of Buddhism which also enjoined the moral duties of loyalty to the king, filial respect, and fidelity in friendship. But where Confucianism was concerned with good ways of living in the world, Buddhism emphasised the cultivation of the spiritual essence of the human mind. Harmony – the harmony produced from different elements – is the ethic of Taoism. People who maintain a harmonious balance between the natural forces of yin and yang will be blessed. The flag of the Republic of Korea is an expression of the yin-yang principle. Also important from at least the tenth century AD has been the influence of geomancy on Korean thought and practice. In that belief system, the earth's fields of force are associated with natural elements and features of topography and landscape. If humans are to live lives of good fortune, they must respect these forces and live in harmony with them.

## **KINGS AND SCHOLAR-OFFICIALS**

One of the recurring themes of Korean history is the conflict between the aristocratic principle of ancestry and the meritocratic principle of government by an intellectual elite. Confucian thought legitimated the role of scholar-officials as advisers to kings and administrators. Confucian scholars entrenched themselves in the leading positions of government by taking over the Chinese policy of recruiting officials by means of a national examination. The civil service examination in use at the end of the tenth century AD, when the Wang dynasty came to power, required knowledge of Chinese literature and classic Confucian texts. The national university, established in 992 in Kaesong, the national capital, comprised colleges for the study of Chinese literature, Confucian teachings, law, calligraphy, and accounting. The link between Confucian institutions of learning and the business of government was mutually reinforcing.

Over the centuries, Confucian scholars wrote numerous compilations of official policy in the various fields of public administration as well as treatises on proper conduct in public and private life. The relationship between Confucianism and monarchy was thus reciprocal. The monarchy depended on Confucian scholars for its elite of officials. Confucianism sanctioned the moral injunctions on which monarchy was based. Confucian scholars provided the education that prepared each generation of aspiring young men for the civil service examination. Strong ties of fidelity existed between scholars and officials and with the dynasty they served.

## **TIMES OF TRANQUILLITY, TIMES OF TROUBLE**

The kings of Koryo were necessarily diligent in terms of defending themselves. Their military forces were their protection. But they could also become the focus of disaffection, and there were times when generals were kingmakers and the real power behind the throne. The geography of Korea also made it vulnerable to attacks from land and sea. Good relationships with China were essential to its security.

It was also in China's interest to maintain harmonious relationships with Chosun rather than having potentially hostile forces in the north-east. For most of its recorded history, Korean dynasties maintained good neighbourly relations with China. There were incursions of Mongols and Manchus and attacks from the sea by Japanese brigands but, with the help of China, Chosun largely maintained its territory during recurring times of trouble. Its land boundary at the end of the nineteenth century was virtually the same as it had been 900 years earlier.

But by 1894 the Chosun dynasty had lost its legitimacy. Large numbers of peasants had been freed from the status of serfs but they lived in grinding poverty. The government responded to peasant uprisings by appealing to China to defend it from its own people. Japan seized the opportunity to assert its growing influence by invading Chosun and by defeating China in the Sino-Japanese war of 1894. When Japan defeated Russia in 1904-05, her ascendancy in East Asia was confirmed. Under the Treaty of Portsmouth, which ended the war, Britain and the United States acknowledged Japan's paramountcy in Korea. On 29 August, 1910, King Sunjong was forced under Japanese pressure to issue a proclamation renouncing the throne and his country to Japanese colonial rule. Japan symbolised its ascendancy by changing the spelling of Chosun to the Japanese Chosen.

## **SUBJECTION, WARS, PARTITION**

The Japanese replaced the repressive rule of the last decades of the Chosun dynasty with their own harsh regime. Through Japanese banks, they monopolised commercial activity and the exploitation of mineral resources, seized farmland, and developed communications and transportation systems that would in time serve Japanese war aims in Manchuria and China.

They incited resistance from patriotic movements among sections of the population that had earlier protested against the Chosun dynasty. "Righteous armies" of peasants operated in small guerrilla bands. Scholars linked up with them and other opposition groups. Protestant Christian missions, the first of which began in 1884, became important instruments of nationalist thought as well as of Christian doctrine. Some strands of Confucian thought were opposed to

modernising tendencies but all were opposed to the Japanese imperial presence in Korea. Within Buddhism, too, there were patriotic reform movements.

Under Japanese rule, the number of schools increased considerably, and the Keijo (Seoul) Imperial University was established. But the main beneficiaries were the children of Japanese immigrants. Enrolment rates of Korean children were very low except in primary school. Instruction was in Japanese (Ki-baik Lee, 1984, p. 367). Koreans were required to take Japanese names.

These policies had the effect of intensifying the search by patriots for symbols of Korean identity. There was a broad movement for enlightenment in all Korean life. *Hangul*, the Korean writing system, came into its own. Invented in 1446, it became the vehicle for expressions of patriotic opinion. The *Independent*, first published in *hangul* in 1896, was the first of many Korean newspapers to take up Korean nationalist causes. Others, such as *Chosun Ilbo* and *Tonga Ilbo*, also published in *hangul*, spread the word nationwide. Publishing companies produced numerous books, nationalist histories and educational newspapers in *hangul*. A new wave of writers adapted older literary forms to new political purposes. There was an increase in the number of scholarly associations in various provinces, many of them with educational and nationalistic aims. National fervour also resulted in the setting up of private schools and, by the 1930s, half of the school population was enrolled in them or being educated overseas. *So-dang* (village study halls) and night classes for labourers, women, and girls, using *hangul* as the medium of instruction, were set up throughout the country. There was a move to establish a Korean university as an alternative to Keijo Imperial University.

From the first uprisings against the Chosun dynasty to the defeat of Japan in 1945, the nationalist movement built up its honoured record of patriots, martyrs and memorable events. An important moment was the March First Movement in 1919 – the initiative of Chondogyo (religion of the Heavenly Way), Buddhists, Christians, and various educational associations. Throughout Chosun history, the loyalty of Confucian scholars to the king had inhibited any collective expression of grievance. The presentation of humble petitions was their respectful way of letting their masters know that all was not well in the realm, and this system continued under Japanese rule. But the March First Movement initiated an altogether more active style of opposition. Instead of presenting a time-honoured petition, its leaders boldly wrote and signed a Korean Declaration of Independence. Street demonstrations of students followed. The cry “Long Live Korean Independence” was taken up throughout the land by shopkeepers, farmers, labourers, and from people of all social classes. Korean employees working for the occupying government found ways of showing their sympathy with the nationalist cause. It has been estimated that more than two million Koreans took part in peaceful demonstrations in 1500 gatherings in all but seven of the country’s 218 counties.

The Japanese military repressed these demonstrations with many lives lost in the process. At first, the movement failed because of the lack of sympathy from the victorious Allies at the 1919 Peace Conference. The United Kingdom, the United States, and France would not act contrary to the wishes of Japan. But the movement led to the creation in Shanghai in 1919 of the Provisional Government of the Republic of Korea. It was the beginning of the organised struggle for Korean independence. The Declaration of Independence looked forward to the creation of a republican democracy in which all Koreans would enjoy personal freedom.

The Declaration drew its inspiration from President Woodrow Wilson's principles of self-determination. Some Korean patriots, however, drew their inspiration from the Bolshevik revolution in Russia. Ideological differences between liberal democrats and communists deepened during the next three decades and had their tragic denouement in the Korean war of 1950-53.

Students continued to play important roles in the creation of a national consciousness. Left-wing activists were at the forefront of the June 10, 1926 Independence Demonstration, which marked the death of Sunjong, the last ruler of the Chosun dynasty. The Kwangju student uprising of 1929, which produced demonstrations and a wave of school strikes in that ancient city and elsewhere, was the biggest nationalist demonstration since the March First Movement of 1919.

During the 1920s and 1930s Japan controlled Korean economic life. Japanese money determined investment decisions. Japanese enterprises channelled the export of Korean raw materials to Japan. Goods manufactured in Japan dominated Korean markets. By 1931, 95 per cent of Korean exports were sent to Japan and 80 per cent of imports were from Japan. With the increase of Japanese investment in Korea, the volume of Korean manufactured exports grew during the 1930s, mostly to Japan's advantage. In 1938, 88 per cent of the investment in Korean manufacturing was Japanese and the remainder Korean (Ki-baik Lee, 1984, pp. 346-361).

Japanese exploitation of Korean minerals, and the development of chemical and heavy engineering industries were essential for Japan's munitions industry and its war plans. There was a heavy concentration of industrial development in the Hamgyong province, close to Manchuria. From 1931, when Japan invaded Manchuria, until the end of hostilities in 1945, the Korean peninsula was Japan's land corridor to its battle zones in East Asia.

The end of the Second World War proved to be disastrous to visions of a united, independent Korea. The United States dropped a nuclear bomb on Hiroshima on 6 August 1945. The Soviet Union declared war on Japan three days later. Japan capitulated on 15 August. Korean jubilation quickly turned to confusion in the political vacuum left by the sudden collapse of the Japanese regime.

Liberal Democrat activists supported the Korean Provisional Government in Chungking and anxiously awaited its return. Left-wing activists formed their own Korean Peoples Republic before the arrival of American troops.

After declaring war on Japan, the Soviet Union occupied Pyongyang, Hamhung, and other cities in the northern part of Korea. US troops entered Seoul on 8 September. The dividing line for the two occupying armies was set at the 38th parallel. The Soviet forces formed a Provisional Peoples Committee for North Korea under the chairmanship of Kim Il-song, and many Koreans living north of the 38th parallel migrated south. The US forces established their own military government, created a South Korean Interim Government, and initiated negotiations with the USSR for the creation of an independent Korea. These negotiations broke down, and against Soviet opposition, the US took the matter to the UN for decision. The UN General Assembly approved a constitution for Korea, and the first elections in Korean history were held under UN supervision in May 1948. But relationships between the North and South Korean administrations had reached an impasse. North Korea refused to take part in the election. One hundred of the 298 seats in the Korean National Assembly were to be filled by northern representatives but were left unfilled. In December, 1948, the General Assembly of the United Nations acknowledged President Syngman Rhee's government as the lawfully constituted government of Korea.

Most of the American occupying forces left Korea during 1949. On 25 June 1950, North Korea attacked across the 38th parallel. Its forces all but overran the south before US troops, spearheading a United Nations Force, landed behind their lines in September. China entered the war on North Korea's side in October. The war see-sawed for three years, became a military stalemate, and an armistice was signed on 27 July 1953. Negotiations under the authority of the UN failed to convert the armistice into a peace settlement. Korea remains divided by the armistice line around the 38th parallel. For more than 42 years South Koreans have lived in a state of heavily armed military alert against another surprise attack.

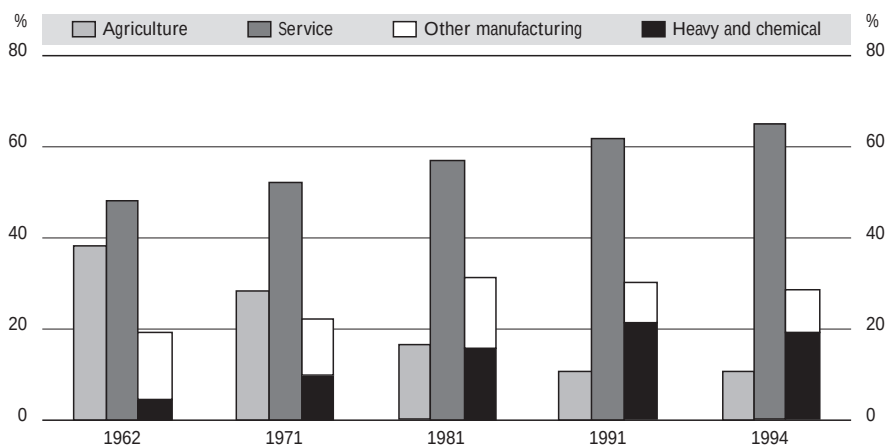
Koreans north and south of the border suffered cruelly during the war. Military and civilian casualties were high on both sides. There was great material destruction. A third of South Korea's housing was destroyed. Ports were ruined, as were large numbers of public buildings, roads and bridges. About 43 per cent of manufacturing facilities, 41 per cent of electricity generating capacity, and 50 per cent of coal mines were destroyed or damaged. An estimated one million refugees came south before the armistice, adding greatly to the tasks of post-war reconstruction. The cost of repairing the war damage has been estimated at more than a year of national output (Ki-baik Lee, 1984, pp. 380-381).

## RECONSTRUCTION AND DEVELOPMENT

From being one of the poorest countries in the world, Korea has become one of the most rapidly industrialised economies (the paragraphs that follow are based on OECD, 1993 and on the report on Korean education published by MOE/KEDI, 1996). The pace of change and the rate of economic growth have been spectacular. In 1953 the per capita income was 1 per cent of the OECD average. In 1992 it had grown to be almost one-third of that average and was on a par with Greece and Portugal. Korea was the thirteenth largest exporter in the world. Despite the oil shocks of the 1970s and a debt crisis in the early 1980s, its economy has grown at an average of 7 per cent per capita since 1961. The growth is expected to continue at about that level.

That growth has been achieved by strong centralisation of the economy. Until 1987, when moves began to restore democracy, the country was ruled by authoritarian regimes that were able to manage economic and fiscal policy without the constraining influences of popular representation. The changes that have taken place in the structure of the economy since 1961 are summarised in Figure 1. The shift from the primary to the manufacturing and services sectors is striking.

◆ Figure 1. *Composition of GDP by sector*  
Percentage of GDP



Source: OECD Economic Survey of Korea (1994), p. 8, Figure 4.

## AGRICULTURE

In 1949 a fundamental land reform redistributed land from landowners to tenants. Holdings were restricted to a maximum of three hectares. Until the early 1970s more than 50 per cent of the labour force was still occupied in agriculture. The number of people living on farms fell markedly during the 1980s with the fall in the size of families, the movement of young people to the cities, and more use of agricultural technology. The very small size of most holdings means that many rural people combine agriculture with other occupations. The farming population is ageing – about 39 per cent are older than 50 – and is expected to fall to about 6 per cent of the population within a generation. That would bring it into line with the present OECD average.

Rice has traditionally been the main Korean crop and still accounts for more than 30 per cent of agricultural production. But rice production is falling and crops of higher value, such as fruit and vegetables, are increasing. With an increasing demand for meat from the cities, the raising of livestock has increased.

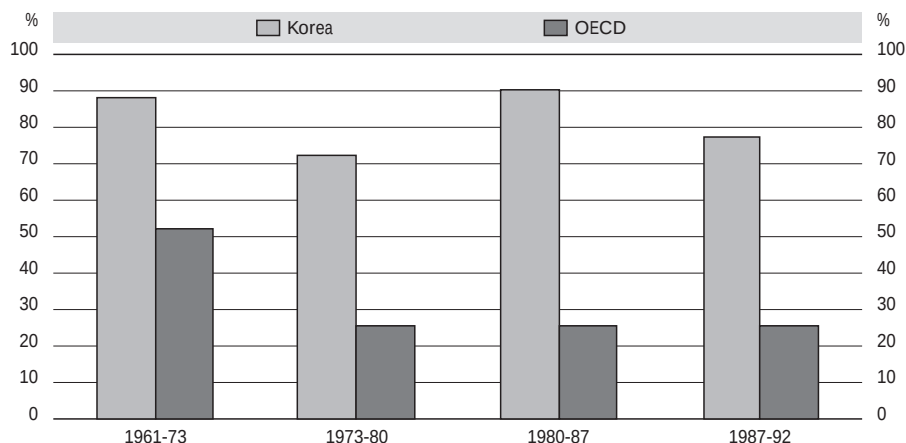
Until quite recently, Korean governments have protected the agricultural sector to ensure self-sufficiency in rice and other basic foodstuffs, but the government has begun to dismantle these protections. Under current policy initiatives, the aim is to increase the size of farms to a maximum of ten hectares. More will be invested in mechanisation and R&D. Improvements in rural infrastructure will increase possibilities for alternative employment.

## MANUFACTURING

During the last 40 years the Korean economy has been closely protected by high tariffs and licensing restrictions on imports. This provided the setting for the development of light and of heavy industries. By the 1960s, the expansion of exports replaced reconstruction as the primary goal of economic policy. Financiers and manufacturers were assisted by government-driven export targets and tax and other incentives. Restrictions against imports and foreign investment continued. GDP growth during the 1960s increased at nearly 9 per cent per capita per year (see Figure 2).

At the beginning in 1973, the government changed its policy from a general encouragement of exports to the targeting of heavy and chemical industries i.e. iron and steel, non-ferrous metals, ship building, machinery, and chemicals. This was done in close associations with the *chaebols*, the large private sector conglomerates. The infrastructures for light industry were also up-graded to face the increasing competition from other developing countries. The effect of these policies on the structure of the economy can be seen from Figure 1.

◆ Figure 2. **GDP growth in Korea and in the OECD**  
Annual average percentage change



Source: OECD Economic Survey of Korea (1994), p. 23, Figure 1.

## ECONOMIC LIBERALISATION

In Korea, as elsewhere, there is continuing debate among economists about the long-term effects of government preferential treatment towards some industries. Comparisons are made between the costs and benefits of the heavy and chemical industries and the electronics industries. The former have left a legacy of low-performing loans, the latter have flourished without concessional treatment.

During the 1980s, Korean governments concluded that some economic liberalisation was needed if the country was to maintain favourable terms of trade, reduce inflation, and stay competitive in international markets. Government interventions became functional rather than specific to industries or firms. Tariff barriers and import licensing restrictions have been reduced since 1987. In 1994, tariff levels were similar to those of most OECD countries. A phased deregulation of the domestic financial market is under way. Domestic bonds are to be opened up to foreign investors.

The rationale for these policies is summed up in the *OECD Economic Survey: Korea* (1993). With the almost twelve-fold growth in the absolute size of the

economy in the past 30 years, policies of administrative guidance and discriminatory regulation are not only difficult to implement but have also become increasingly unsuitable for ensuring the fast pace of economic development required to catch up with the most advanced industrial nations. With markets becoming bigger and goods more sophisticated, and with the number of companies growing and demand becoming more volatile and difficult to predict, more emphasis should be put on private sector initiatives with increasing reliance on signals from the market. The re-allocation of labour to more efficient uses will be a key to maintaining rapid growth in the next decade, along with improving technology and the easing of regulations which tend to impede the necessary transformation of the economy. Deregulation, especially in financial markets, will enable Korea to draw on foreign savings, and to benefit from lower borrowing costs abroad, thereby ensuring a continued high rate of investment and growth. The proposals of the President's Educational Reform Proposals (ERP) are in many respects a comprehensive educational response to the message of that statement.

## **THE LABOUR MARKET**

In 30 years the Korean labour market has changed from rural self-employment to one in which most jobs are provided by industry and service enterprises. The rapid development of the education system has greatly influenced the quality of the labour force, which doubled during that time. The share of women has grown substantially but in 1990 was still 20 per cent lower than the average in OECD countries, the rates for most age groups being similar to Ireland, Italy, and Spain.

The growth of the non-farm sectors since 1962 is shown in Figure 1. During the 1980s an average of 570 000 non-farm jobs were created each year. This rate of growth was three times larger than the average of OECD countries. Since 1987, demand in the manufacturing sector has fallen slightly. Employment continues to increase in capital-intensive industries such as machinery, transport equipment and electrical. There have been declines in labour-intensive industries such as clothing and textiles in the face of competition from other East Asian economies, notably from China. The share of the most capital-intensive industries – chemicals, petroleum products, base metals, and public utilities – has remained fairly stable.

The demand for labour has outstripped its supply, particularly during the 1980s. Unemployment fell to an historically low level of 2.5 per cent in 1988 and remains at this level. Real wages grew faster than productivity during those years, with effects on inflation and the rate of return on capital investment in manufacturing industries.

What economists call the “natural” or “equilibrium” rate of unemployment – the relationship between real wages, productivity and joblessness – seems to be about 3.5 per cent for Korea, at which point the share of labour in national income remains stable. This is significantly lower than the rates estimated for most OECD countries, Japan being a notable exception. Three features of the Korean economy are relevant to this difference – an absence (until now) of unemployment benefits, widely dispersed rates of salary between industries, and the restricted place of collective bargaining until recently.

The Korean Constitution confers rights to workers to organise, bargain collectively, and take collective action to improve working conditions. The Federation of Korean Trade Unions (FKTU) was founded in 1960 and has 20 national affiliates. In 1992 there were 7 527 trade unions organised on the basis of enterprise, region, or type of business. Union membership is concentrated in large enterprises. Eighty per cent of firms with more than 500 workers are unionised, compared with 3 per cent of firms with less than 100.

Despite the constitutional right, the military governments of the 1960s and 1970s kept firm control of labour relations. Before 1987, collective bargaining was unusual and unions had no effect on relative wage rates. Since 1987, in the move to more democracy, government control over strikes and collective bargaining has ended, and there has been an upsurge of union activity. In the sector that is most highly unionised – manufacturing –, there have been considerable increases in wages. Prior to 1987, manufacturing wages were 15 to 20 per cent below the national average. White collar government officials and teachers are not allowed to join unions. Political activities by unions are prohibited.

Steps have been taken since 1988 to improve the status of women in the labour force. In 1980, the differential between the wages of men and women was one of the largest among industrial nations. Ten years later, the average earnings of women had increased from 43 per cent to 55 per cent of the average earnings for men. The provision of childcare facilities for women workers is an essential requirement for higher participation rates of women in the labour force.

## THE PUBLIC SECTOR

Korea has a small public sector. In 1991, general government expenditure and taxation stood at 20 per cent of GDP, well below the lowest spending and taxation levels of OECD countries. As a share of GDP, it is less than half the average level in OECD countries.

The central government makes nearly all decisions about taxation. Eighty per cent of all taxes are raised at the national level. Local taxes are also set by the central government and are uniform throughout the country. Local governments,

however, administer slightly more than 50 per cent of total government expenditure.

Expenditures on defence, law and order, public administration, and on transport and communications infrastructures are broadly similar to OECD countries. The main differences are in income redistribution and expenditure on social policy. Since 1987, a national pension scheme and a universal health care programme have been introduced.

This pattern of expenditure reflects the priority that governments have given to economic development during the last 30 years. One of the prime aims of fiscal policy has been to maintain a high rate of government saving to finance improvements in public infrastructures and to provide subsidised credit to government-supported activities. Government savings were lifted to 6 per cent of GDP in the mid-1960s and were generally kept at that level for two decades. Following the recent introduction of the national pension scheme, government savings have risen to about 8 per cent of GDP. The general government deficit is kept small. Most public lending programmes are financed from current receipts. Total public assets are now larger than the gross public debt. In 1992, gross central government debt was under 10 per cent of GDP. The central government controls local government borrowing.

Until 1991, local government was closely controlled by the central government in all important respects. Mayors, county supervisors, and provincial governors were employees of the Ministry of Home Affairs. Local authority elections were held in 1991 for the first time. Local authorities became fully representative following elections in June 1995, which included elections for mayors and other remaining senior positions.

Local authorities are organised in three tiers. Provinces and autonomous cities form the first tier. The second comprises districts within autonomous cities and counties or cities in provinces. Towns, townships, and villages form the third tier, with functions limited to record keeping.

## **EDUCATION AND TRAINING**

Korea's record of achievement during the last forty years is as spectacular in education and training as in any other sector of national development. No other country starting from similar circumstances can match it. A modern system of education and training has been created. In a population that had grown to 42.8 million in 1990, quantitative expansion has matched an increasing demand for primary and secondary education. Increases in university and other forms of tertiary education have been equally impressive. Internationally, participation and completion rates at all levels of formal education are among the top handful of nations.

In 1953, the first task was to rebuild schools and other educational institutions and to build new ones to cope with the demand of a large, fast growing school population. The educational ladder formed by primary and secondary schools (lower and upper levels), universities, junior colleges and teachers colleges was put in place.

The Korean education system has been subject to a number of reviews and reforms intended to strengthen and diversify its services. The examination at the end of lower secondary school was abolished, reducing one of the pressure points in the system. Students were assigned to high schools by lot with the aim of removing another pressure point, but this is still a controversial issue.

Junior vocational colleges were given greater recognition as an important part of post-secondary education and training. Colleges for the initial professional education of primary teachers were upgraded to four-years colleges. The importance of second chance education and on-site vocational training was recognised in the wider context of lifelong learning. The creation of the Korea Air-Correspondence University in 1972 and the Korea Air-Correspondence High School in 1974 were the forerunners of important developments in open learning for adult students. The Korean Educational Development Institute was established in 1972 to undertake research and development associated with national policy-making in education.

The development of vocational and technical education mirrored the development of the Korean economy. Vocational high schools were established in the 1960s to provide training in craft skills for the country's labour-intensive light industries. Junior vocational colleges were set up in the 1970s to supply technicians for the heavy and chemical industries. Industrial masters' colleges modelled on German *meister* colleges were established by the Ministry of Labour in autonomous cities and provincial centres. Science and engineering faculties were called on in the 1980s to meet the growing demand for scientists and technologists.

There have been parallel developments in training within industry. Since 1976, larger enterprises have been required by law either to train their employees or pay a levy to the government for the cost of vocational training given in public training institutions administered by the Ministry of Labour.

Until today, policies for educational development have given priority to what most countries consider as the core institutions of formal education and training. Less attention has been given to adult education unrelated to vocational education and training and, until the last decade, to early childhood education.

But any account of the Korean education system that confines itself to organisational features will overlook one of its leading characteristics. What must also be stressed is the very high priority that Korean families give to the education of their children, and the very heavy financial burden that families bear for

their education (Chapter 5, "Public and private costs"). All Korean schools and tertiary institutions charge tuition fees. Private schools and universities are a striking feature of the national system, and there are, in addition, numerous privately funded educational agencies run on commercial lines. Parents make considerable use of private tutoring to ensure that their children have the best preparation they can afford before attempting the high-school leaving examination.

The extent of private expenditure on education is shown in two ways. In 1994, expenditure on public education amounted to 5.75 per cent of GNP, of which 3.72 per cent was the government sector cost and 2.03 per cent the private sector cost. When spending on private tutoring is added, a further 2.7 per cent of GNP is spent by Korean families (Ministry of Education/KEDI, 1996, p. 13). The heavy financial burden on parents and possible ways of relieving it are central issues in the education reforms now in progress.

## **PREPARING FOR THE FUTURE**

In February 1994, the Presidential Commission on Education Reform was established by President Kim Young Sam. Items prominent on its agenda include issues such as large, over-crowded classrooms, the trauma of the transition from high school to higher education, and the high cost of education to parents that remain unresolved despite the efforts of earlier reviews.

In one sense, the Presidential Commission is the latest in a series of reviews that have sought to improve Korean education. But there are three respects in which it is unique. First, it has come at a most important transitional moment. Its objectives include establishing firmer foundations for a democratic system of education in which proper respect is given to the values of Korean society and citizenship, ensuring that the achievements of Korean history and culture are transmitted to younger generations, and that Koreans are able to benefit from educational and training opportunities at any time in their lives. That calls for a comprehensive review of the entire national system of education and training.

Second, internally as well as externally, Korea is at a cross-roads. International trading relationships have entered a phase of thorough de-regulation, evidenced by the creation of the World Trade Organisation in 1994, to which Korea is a signatory. The new world economic order puts great emphasis on human qualities of creativity, inventiveness, critical thinking, adaptability, and initiative. All societies will have to become learning societies not just the elite, but all citizens. That is the educational message of a global economy.

Third, but adding its own imperatives, the electronic revolution has practical consequences that the world is now beginning to experience. Instant communication, instant access to information, and global deregulation, taken together, are

radically changing the manner in which all people will live and work in the 21st century.

In the May 1995 proposal for public comment (published in April 1996) – *Educational Reform; Proposals for the Establishment of a New System of Education for an Age of Globalisation and Information* – the President's Commission focuses on what it sees as the central educational issue facing Koreans this decade: how to transform education and training in a Korean economy that is at the same time transforming itself in response to global imperatives.

The Education Reform presents a vision of Korea in the early part of the 21st century. It identifies the impacts of global changes on Korea and the responses that Koreans will need to make to them. These stem from economic globalisation and the electronic revolution. To quote the Education Reform, a world “that was once felt to be immensely vast is turning into a neighbourly community”. The advent of a society based on knowledge and information “is a structural change which heralds the advent of a new civilisation”. Faced with these challenges, Koreans must have a strategy for survival if they are not to be condemned to fall behind the rest of the world in history (Presidential Commission on Education Reform, 1996, p. 2).

The Commission believes that in all important respects the Korean education system is ill-prepared to respond positively and creatively to these challenges (see Introduction).

The Education Reform Proposals advocate a new education and training system in which all the negative features of the present system would be transformed into positive features. Its proposals for change can be summarised as follows:

- instead of placing its emphasis on teaching and the institutional settings where teachers have traditionally taught, it should focus on learning, on the needs and circumstances of learners of all ages, and the times, places, and learning media best-suited to those needs;
- instead of concentrating learning opportunities in the early years of life, it should create opportunities for people of all ages at any time of their lives;
- instead of being limited by the demands of leaving examinations, school curricula should be broadened to foster harmonious development, and teaching methods should encourage active learning, co-operation, creativity, and the core values of Korean culture;
- instead of being conceived solely from a national standpoint, educational programmes must include significant international dimensions to prepare Koreans for life in global communities;

- instead of being restricted by the face-to-face methods of conventional teaching, education and training should embrace the revolution in information technology and use multimedia approaches to increase access and effectiveness;
- instead of being uniform throughout the country at each level, education should become more diversified, and offer more choice for parents and students;
- instead of falling to the responsibility of different government agencies, vocational education and training should be more effectively organised and managed;
- instead of being centrally planned and managed, educational decision-making should be devolved to tertiary institutions, provincial, municipal, and local authorities; a new type of university should be established that will be closely attuned to the requirements of the national economy and to regional needs;
- instead of being the preserve of officials and teachers, the management of schools should include representatives of parents and local communities;
- instead of being required to conform to policies laid down for public schools, private schools should be empowered to take new initiatives in education and training;
- instead of being employed under uniform conditions that guarantee automatic wage progression, teachers should receive salary recognition for additional responsibilities and incentives for meritorious performance;
- instead of assuming that all schools are identical, there should be more public information about their performance, the best-performing schools should be rewarded with additional funding, and schools should expect to compete with each other.

In the short time available to us, it would be unrealistic to attempt to analyse all the educational and training implications of a many-sided reform. Furthermore, at the time of our visit the Commission still had to release its initial thoughts on some key aspects of its intentions. But we must say that we are impressed by the boldness and comprehensiveness of the Presidential Commission's vision. It focuses on what we believe are the right issues to be addressed in a global context, and it identifies choices that Koreans must make to meet the challenges of a new education system.

## LIFELONG LEARNING IN KOREA

In the Educational Reform Proposals (ERP), the commitment to lifelong learning is boldly comprehensive. It is now widely recognised in industrialised societies that formal education must be made available for all, at any time. It agrees with the central tenet of open learning that learning opportunities should be accessible at any time, at any place, and through a variety of means and media (Presidential Commission on Education Reform, 1996, pp. 16-17). As one important means for achieving that outcome, the Education Reform Proposals acknowledge the potential of emerging information and communication technologies to make open learning a reality for all in ways not previously possible. It recognises the need for a national framework of policies and infrastructures that provide access, diverse forms of educational provision, support services of various kinds, arrangements for the cross crediting of educational and vocational awards and qualifications, and appropriate forms of academic recognition for people who complete certificate, diploma and degree by whatever route.

In this chapter we link the concepts of *lifelong learning* and *open learning* because it is not possible to achieve the ideal of lifelong learning without comprehensive national policies for open learning. Lifelong learning expresses an aspiration for individuals and open learning summarises the means by which lifelong learning can become a reality in people's lives.

Like many other key words in educational discourse, lifelong learning and open education are often referred to as aspirations rather than definitions or descriptions. To find out what they actually mean in educational policy and practice, it is necessary to know how they are conceived in policy terms, the importance given to them in funding arrangements, the national and institutional infrastructures that convert policy initiatives into learning opportunities, and the comprehensiveness of their coverage geographically and in terms of availability at different periods in an individual's lifetime.

The questions for educational policy that are raised by expectations of lifelong learning are: What kinds of learning are deemed to be so important in the national interest that they should be made available to citizens, how should they be made available, and who should pay for them? Until now, Korean answers to

these questions have largely been confined to the vocational requirements of a country that was emerging Phoenix-like from the ashes of the past. Opportunities for early childhood learning outside the family have been restricted. Opportunities for disabled children, young people and for adults other than for vocational purposes have been sparsely provided. Educational opportunities after the middle school years (lower secondary education) have been sharply delineated into academic and vocational tracks with, in practice, not much transfer of students from one track to another. University and college education has been confined to full time enrolment during the traditional years of 18-22. Arrangements for continuing education and training have been closely linked to the training requirements of enterprises and to the gaining of certificates associated with higher status within occupations.

For a future in which increasing numbers of Koreans will regularly need to update and extend their knowledge, and who will have to be trained for occupations that may not yet exist, there will be an increasing demand for further education and training in the course of their working lives. Adults who want a second chance to upgrade their knowledge and skills have additional needs. The spectrum of special abilities to be developed is also broadening. The Education Reform singles out foreign languages, international understanding, and a deeper appreciation of Korean history and culture among the learning priorities for Koreans in an era of globalisation. In doing so, it is outlining a vision for Koreans as citizens as well as workers in a global community.

In many ways, the Education Reform is saying that the present way of conceptualising and providing education and training is inadequate. The life span of an individual must be factored into policy thinking: rigid distinctions between academic and vocational learning and between job-related requirements and personal achievements should be broken down, educational and training arrangements should be flexible and accessible, and the entire system must be dedicated to excellence in teaching and learning. In short, Korean education must become more open. Openness in education is a *more-or-less*, not an *either-or* concept. All the proposals in the Education Reform are intended to make Korean education more open than it is now. And it is clear from the wide ranging nature of the changes it advocates, that significant structural changes will be needed if the system is to become more open for learners during their lives.

In seeking changes for more openness, Korea shares a common policy objective with all other industrialised countries. Although there are many similarities between what the Education Reform proposes and what other countries are also doing, Korea's way of achieving its objective will be unique. Indeed, all countries are *sui generis* in the way they give practical expression to their over-arching policy objectives. National education and training systems are very complicated social systems. They all have their histories and institutional traditions, and they

comprise many groups and interests whose aspirations and contributions must be taken into account when implementing policies of comprehensive reform.

A number of characteristics help evaluate the openness of education systems. Among the most important we can mention:

*In terms of national policies:*

- Does the national system of education and training express a comprehensive commitment to the removal of barriers to access to formal learning wherever practicable?
- With what degree of conviction do policy makers affirm open education as a major policy objective and what priority do they give to it through their funding allocations?
- Are national policies of open education and training sufficiently comprehensive and flexible to meet the varied requirements of learners, and are they dedicated to the provision of excellent educational and training services in the various ways of delivering these services to learners?
- Are there suitable arrangements for monitoring and evaluating the effectiveness of the provision of education and training in all its recognised modes?

*In terms of national infrastructures:*

- How comprehensive is the information that is made available to the parents, students and the general public about education and training programmes, what guidance services can they use for their own educational and training purposes, and how accessible are they?
- What provision does the national system make for the early detection of children with disabilities and/or at risk to failure, how comprehensive are such services in terms of the disabilities covered and the geographic availability of such services, and how readily accessible are they?
- Is there a national qualifications structure which:
  - encompasses all recognised educational and vocational qualifications;
  - sets out the prerequisites and the course requirements for each qualification;
  - has an internal structure that enables people to progress from lower to higher qualifications *i.e.* from certificate to diploma, from diploma to degree, and from graduate to post – graduate qualifications;
  - authorises procedures for the recognition of prior learning for people who lack the formal admission qualifications for particular study programmes;

- has a form of governance that keeps the structure of national qualifications under regular review;
- considers proposals for the addition of new qualifications and resolves disputes about the comparative recognition to be given to particular qualifications in the national structure?

*In terms of education and training institutions and services:*

- Are institutions and services well attuned to the objectives of the national commitment for greater openness in education and training? In particular:
  - How flexible are their admission policies?
  - Do they have regular arrangements for assessing the prior learning of applicants who do not meet their normal entry requirements?
  - How far do they adapt their teaching programmes to the varied circumstances of students?
  - Do they allow students to transfer to other study programmes with a partially completed qualification?
  - Do they allow such students to transfer credit from their previous programmes or institution?
  - Do they allow students who have completed a qualification in another recognised institute to enrol for a higher qualification in the same field?
- Are the human, financial and material resources adequate to meet the requirements of different modes of teaching and learning?
- Through their induction and staff development programmes, do they actively encourage their teachers to strive for standards of excellence in all their teaching/learning arrangements?

It is important to underline that educational openness is a policy-orientation that begins with the needs of learners and ends with practical educational solutions that satisfy those needs. Openness for students, furthermore, must often be achieved at some cost to the autonomy of educational institutions and their teachers. Institutions which are more responsive to the various circumstances of potential students find that they must change many of their time-honoured ways of operating. Systems and institutions that have traditionally been “closed” are faced with the task of re-engineering themselves if they are to meet the criteria of openness listed above. Open education, in other words, should not be thought of as something that can simply be added to an existing education system. To take open education seriously is to change the internal culture of educational systems and institutions, and the administrators’ and teachers’ mentalities. That, as we read it, is what the Education Reform proposes for Korea.

“‘Distance learning’ has become central in policy discussions about open education and need to be defined. Distance learning (or distance education) and open education are often used in educational discussions and debates as if they were different ways of saying the same thing. But open education is a policy commitment and distance learning in its various forms is a strategy for giving practical expression to that commitment. In countries such as Korea where distance learning opportunities are wholly or largely confined to specialised agencies, such as open universities and open polytechnics, the strategy of providing distance learning can mistakenly be considered as if it was the only way to achieve the broad policy commitment to open education.”

There are two main reasons why that is an inadequate policy response. The first is conceptual. Distance learning in its various aspects has made a great contribution to our understanding of how educational opportunities can be opened up. It is becoming clear, however, that distance learning is only a partial description of the various forms of education and training that should be comprised under the rubric of open education. It puts the emphasis on the distance between the teacher and what is being taught instead of putting it on the nature of the learning itself. By emphasising geographical separation and remoteness from teaching campuses, it deflects attention away from other pedagogical innovations that express the same principles of learning that are a feature of good distance learning programmes. Important developments have also taken place in many conventional universities, colleges and schools that shift the focus from teachers teaching to students learning – schemes such as problem-based learning (PBL), which is used in a number of medical undergraduate programmes; co-operative learning arrangements, where important initiatives rest with students for their own learning, computer-assisted learning and, more recently, schemes in conventional universities based on multi-media and hyper-media. In all such schemes, it is important to separate the organisational packaging from the pedagogical intention. As with distance learning approaches, the intention is to enable students to have greater control of their own learning. The common feature is their focus on guided individual learning through institutional policies aimed at achieving that objective.

The second comment is a practical one. It refers to what all educational institutions should do, as a matter of institutional policy, to increase opportunities for their students – whether they are full-time students on campus or part time students off campus – to experience guided individual learning as an integral feature of their academic programmes. There is one powerful reason why this is as important for full-time students experiencing face-to-face teaching in conventional universities as it is for “distance” students. Whatever the nature of students and undergraduate study programmes, all Koreans are entering a future

in which guided individual study in one form or another will be the main mode by which they will experience formal education and training during the rest of their lives. Educational institutions that previously thought of themselves as conventional in their teaching approaches are now obliged to use approaches that give students greater control over their own learning, in much the same manner as specialised distance-learning institutions that have come to be identified with these approaches.

Nothing in the Education Reform Proposals would preclude this from happening. The emphasis it gives to institutional autonomy, to flexible teaching arrangements, to the enrolment of part-time university students, and to the transfer of students among tertiary institutions, all point to important changes that will be needed in a system that is committed to becoming more open. But we nevertheless wonder if the assumption is that in the future, as in the past, open universities and open polytechnics will be the policy vehicles for achieving open learning opportunities in what will continue to be two parallel systems of post-school education and training: the conventional system for students who, upon completing high school will qualify for full time admission to undergraduate programmes; and an open “system” for the others. As we see it, *all* educational institutions must be included in national policies for open education and be prepared to contribute actively to their implementation. Under such policies, as we have noted above, institutional autonomy could not be unlimited. Educational institutions should have much greater control over their efforts to achieve institutional goals. But in a national system dedicated to openness of access, institutional goals must be consistent with national goals.

## **CREATING AN EDUCATIONAL PLATFORM**

Policies for lifelong learning call for a rethinking of the purposes of early childhood, primary and high school education. In conventional systems, primary schools and high schools performed filtering and rationing functions. Formal education was thought of as a pyramid, with progressively fewer students remaining in formal education at its higher levels. As the years of schooling for all children increased and as national economics diversified and came to require more skillful workers, secondary schools and tertiary institutions began to differentiate their teaching programmes. Korean education has until now developed within that policy setting. The defining feature of Korean high schools and tertiary education is the distinction between academic and vocational programmes, and the national system is organised with different kinds of institutions for each type of programme. The Korean education pyramid has a vertical division that formally separates students after upper secondary years and, in practice, from the beginning of lower secondary.

A thorough-going policy approach to lifelong learning requires all the assumptions of the conventional model to be challenged. In education systems such as Korea's where virtually all young people now complete twelve years of schooling, the rationing function no longer applies. There is no need, from the standpoint of public funding, to limit the number of students at high school to anything less than 100 per cent of each age group. The rationing and filtering function of the system will continue to take place during the transition from high school to tertiary education or to some forms of training. Instead of thinking of the first twelve years of schooling as the base of a pyramid, it becomes possible to think of it as the educational platform upon which young people will later build educational and training experiences during the rest of their lives.

It is clearly in this latter sense that the Education Reform Proposals have been made. It has also brought pre-school education into the policy discussion and is regarding the years from birth to 17 or 18 as the platform for lifelong learning. Our comments on the proposals are mostly intended to draw attention to that which will need particular emphasis in the implementation stage.

## THE EARLY CHILDHOOD YEARS

Discussion of early childhood education, not surprisingly, focuses on infants who are expected to benefit from it. In terms of policies for lifelong learning, however, the years before early childhood education (from birth to 5 or 6) are critically important for parents, and particularly, mothers. We are thinking here not only of parent education in matters of health and child development, but of the opportunities for intervention to provide education and training opportunities for mothers.

Korean educational statistics show that women are educationally disadvantaged, though the general statistics also show a recent trend of some reduction in this respect. Even, however, in elementary, middle and high schools where broad statistical differences in terms of participation are insignificant, the educational experiences of girls are for the most part very different. The differences are to be accounted for by strong traditional expectations as to which vocations are appropriate for girls and which for boys. In 1993, for example, girls made up 53 per cent of the enrolment in vocational high schools. But they accounted for only 5 per cent of the students in technical schools and 81 per cent in commercial schools (Korean Women's Development Institute, 1994, p. 21) Such imbalances mean that many Korean women, when they become parents, will have received a formal education which will have steered them in directions that will seriously limit their vocational potential. In a system that is deliberately setting out to harness the possibilities of open, flexible forms of educational provision, women during the years when they have young children should be a target group for policies of

lifelong learning. Sites for early childhood education can also become sites which help women access second-chance educational opportunities. They should provide guidance and information services about educational programmes or training, the introduction to support groups, and access to open education programmes and learning networks.

For young children, the case for early childhood education no longer needs to be made. The importance for policies of lifelong learning is the importance of early intervention for children with disabilities or who for a variety of reasons may be at risk of failure when they later enter the school system. This means that increases in the provision of early childhood educational services should be planned in a context that assumes the availability of a full range of paediatric and special educational services as well.

Korea is a culturally homogeneous country and does not have the task that almost all other countries face of helping parents and children of other cultures to participate effectively in social and economic life. Nevertheless, the circumstances of Korean families can vary greatly, and the years of early childhood are the first and, in many respects, the most important time for intervention in the interests of greater equality of educational opportunities. Participation rates in early childhood services in Korea are low in comparison with OECD averages. Special education services appear to be professionally well trained but they also appear to be thinly spread. The Ministry of Health and Social Affairs is increasing the number of day centres each year, but the rate of increase is small compared with the present gap in provision. In our view, the development and expansion of early childhood educational services should be given a higher priority in government funding. We endorse the Education Reform Proposal for a closer integration of early childhood educational services with the first year of primary education.

## **PRIMARY EDUCATION**

In terms of policy for lifelong learning, we think that the Education Reform Proposals (ERP) are soundly based. A broadly balanced curriculum is the essential educational requirement for all children, regardless of their later educational and vocational choices. It should reinforce the nation's core cultural values. It should inculcate forms of knowledge and, attitudes and develop abilities that will begin to enable each child to take charge of his or her learning.

The challenge for the system will be to translate these aims into the everyday school experience of Korean boys and girls. The practice of active learning is at the heart of the ERP's intention but it is unrealistic to expect it to be achieved in classrooms that typically have as many children as is currently the case. No less important than the classroom conditions for teaching and learning is the

professional expertise of Korean teachers and the resources they can call on. We will comment on these matters in the next chapter.

## MIDDLE AND HIGH SCHOOL YEARS

Middle and senior high schools are institutionally distinct phases of schooling in Korea, each of three years duration. Little is said about middle schools in the ERP report, where the focus is very much on high schools and the transition to tertiary education or training. Furthermore, the ERP seems to us to assume that most high schools will continue to be differentiated as academic and vocational high schools. In terms of lifelong education, this means that the most important educational decision in each child's educational life history would continue to be made no later than the age of about 15, at the end of junior high school.

For four different sorts of reasons, we think it would be a mistake to organise the education system around selection decisions to be made at that early age. First, virtually everyone completes some form of senior high schooling, so the rationing decisions concerning the transition from junior to senior high school are no longer necessary. Second, the bases on which students are directed into a vocational or an academic high school are questionable. It is our impression that, because most parents are required to pay fees for their children's education beyond the primary level, a proportion of boys and girls are directed to a vocational high school in the expectation that it will prepare them for employment in three years' time, thus removing a financial burden from their families. Our discussions in the Korean Women's Development Institute left us with the impression that girls from families that are not well off are directed into commercial high schools when they may well have the potential to do an academic high school course. The same will no doubt be true for boys though not perhaps to the same extent. Thirdly, the Korean economy is going beyond the stage where high school vocational education provides sufficient preparation for a career. To supply lifelong learning, initial education must equip all students with enough theoretical understanding to master future changes in technology, employment opportunities, and social conditions. Not to provide all students with a broadly based platform for lifelong learning will either prevent some teenagers from making their full contribution later on or will necessitate costly outlays for second-chance education later in their lives.

Our fourth reason is a general educational reason. It arises from a consideration of the concepts of abilities, special aptitude, and how children's abilities can best be identified and developed from the early childhood years to the end of high school. The Education Reform Proposals say:

"Both schools and educational programs [will be] diversified so as to enlarge the scope of choice for learners. The curricula are organised so as to widen

the scope of choice from which learners select considering their given aptitudes" (Presidential Commission on Education Reform, 1996, p. 21).

Principles of flexibility and choice are also proposed for high school curricula. The "commonly required subjects" would be reduced in number and concentrated on the first grade of high school. "This will enable students to take elective subjects, which are related to their aptitudes and career plans from the second year" (*op. cit.*, p. 50). The impression we form from these statements is that there is an expectation that student's "given aptitudes" will be so clearly identified by the end of the first year of high school that the curriculum that each will follow for the final two years can be "diversified" and "specialised".

We seriously doubt if this is the best way of organising teaching and learning in high schools to establish what we are calling the educational platform that every Korean will need as a preparation for continuing education and training throughout the remainder of their lives. The identification and development of aptitude are very closely associated with opportunities to learn. Human beings have the potential to develop many aptitudes, and the ones they do in fact develop are usually a consequence of learning opportunities during their formative early years. The general experience of advanced education systems is that, if the educational objective is the development of the aptitudes of all children, school curricula should be broad and balanced at all levels of primary and high schooling for all students, and irrevocable decisions about their courses of study should be avoided if at all possible. Choice of options is important but so, too, is the overall context within which choices are to be made. If, by prior decision, some choices are already ruled out, educational opportunities will be denied to those teenagers for whom at least some choices are not available.

To enable all high school students a full range of choice, schools need to have teachers with a range of specialised knowledge and skill that is as broad as the curriculum to be taught. Schools must have specialised teaching accommodation and equipment so that students can actively sample courses in all curriculum areas. All schools must have personal record systems and guidance arrangements that will enable students, parents and teachers to become aware of their developing aptitudes, skills and interests.

The national curricula that are now being developed in Korea are broad and comprehensive. They are structured around compulsory and optional studies, allowing high school students to study some subjects at different levels of difficulty, with some degree of choice to each school. Such a curriculum is capable of becoming the necessary educational platform upon which Koreans will then be able to build their later education and training. But we think that the tracking of students into institutionally distinctive programmes of study before the end of the high school years will militate against that objective. Rather than continuing to invest administrative and teaching effort into recruiting for and maintaining

separate kinds of high schools, we think that Korean high schools should become comprehensive in the sense that (except, perhaps, in very small centres of population,) they all teach the full range of subjects of the national curriculum. Such high schools would provide the specialisation, diversity, and choice that the Education Reform seeks to achieve, but they would do so without creating the forced choices and the decisions which, once made, are hard to undo. We discuss this further in the next chapter.

## NEW SYSTEM OF UNIVERSITY ENTRANCE EXAMINATION

The university entrance examination at the end of high school is one of the most important events in the lives of young Koreans. The result of the examination will determine to which tertiary institution they will gain admission, and this to a very large extent will determine their career prospects, their personal status, and their future life-style. In the present university entrance examinations students are ranked on the basis of their total scores in multiple choice examinations, mainly in three subjects only, that is Korean, mathematics and science, and English.

The huge importance of the entrance examinations has had significant and adverse effects on the teaching in high-school both regarding methods and curricula:

- Class instruction is designed for students to get a good score at the expense of the intended goals and processes of schooling. The goal of teaching becomes to have the students memorise the specific contents that they are likely to be asked in the multiple choice examinations.
- Importance is attached mainly to the three subjects mentioned above which means that students naturally concentrate on these only at the expense of other, almost equally important subjects.
- Students' ranking is decided according to the total scores they get in all subjects which means that the current system is not able to spot and help students who are specially gifted within certain subjects. Test scores rank students but do not provide information on their comparative strengths or weaknesses.
- Special tutoring in order to pass the entrance examinations has placed heavy financial burdens on parents.

Since the current system of university entrance examinations seems to be determining the real curriculum of secondary education, it represents a major obstacle to the necessary improvements of secondary education. In order to support the development of more flexible and learner-centred curricula at a high-school level, it becomes imperative to change the system radically.

This has been acknowledged by the government which has put forward several far-reaching proposals addressing the present problems. An alternative to the present system has been conceptualised setting up a different framework for national and public universities on the one side and private universities on the other. According to the proposal, all public and national universities will in the future base their selection of eligible applicants on personal data recorded in a new comprehensive life register and the scores obtained from the scholastic achievements test, essay-writing, interview, and practice. The private universities, as of 1997, are allowed to employ their own system of screening eligible applicants for entrance. The private universities will, however, be strongly urged to guarantee that the new, individual examination system contribute to a normalisation of secondary education; that it discourage private tutoring; and, finally, that the universities very quickly develop their systems of entrance evaluations. The Education Reform Proposal emphasises that the entrance examinations will be a major element to be included in university evaluation, and that the amount of government support will differ according to the results of the evaluation.

We strongly endorse Education Reform initiatives and see them as a first, very important, step in the right direction. The crucial issue will be the real impact of the changes and the extent to which the system is ready to shift from a totally quantitative evaluation to an evaluation based on a mix of qualitative and quantitative data.

There seems to be massive public support for the changes, and that should provide a good climate for their introduction. For our part, we have strong reservations as to whether they will achieve one of their main objectives, a significant reduction in the demand for private tutoring. We set out our reservations in the section on "Public and private costs" (see Chapter 5).

## **SHIFTING VOCATIONAL EDUCATION TO TERTIARY EDUCATION**

The Education Reform proposes that 'vocational programmes for training young people to acquire the skills necessary to earn a living need to be upgraded from secondary to tertiary education' (Presidential Commission on Education Reform, 1996, p. 5). Continual change and innovation, it argues, increasingly require workers not only to operate the technology and procedures of today, but also to understand basic principles necessary for adopting and adapting new tools and working methods in the future. Koreans, furthermore, must learn to compete not with countries where wages are now much lower, but with more highly paid, technologically sophisticated trading partners.

The Education Reform Proposals call for a major change of current Korean policy, which is to increase the proportion of students enrolled in vocational high schools. The present objective, announced in 1991, is to have 50 per cent of high

school students enrolled in vocational high schools in 1998 (KEDI, 1995, p. 3-8). In 1994, 41.3 per cent were in vocational high schools, up from 35.5 per cent in 1990 (Korean Educational Development Institute, 1994, pp. 162-163). We strongly endorse the Education Reform Proposal, but it requires a careful balancing of short-term and long-term objectives. Vocational high school graduates are in strong demand in the Korean labour market, and that is no doubt why current policy has the objective of increasing the proportion of vocational high school graduates. School and college officials told us that employers hire them for their practical skills and because they are willing to follow directions. Recent increases in pay rates for high school graduates now make it more attractive for students to join the work force at the end of high school thus removing the burden on their families to contribute to the costs of tertiary education. Wage levels for high school graduates grew 330 per cent from 1983 to 1993, compared to a 235 per cent increase in wages of university graduates (the percentage increases for university graduates were from a very much higher base). This reversed the trend from 1975 to 1983, when university graduates' wages grew faster (50.4 per cent) than high school graduates (47.8 per cent) (*op. cit.*, p. 355). The acceleration of wage growth for high school graduates is attributable in part to the relaxation of restrictions on trade unions in the last years of the military regime and the beginning of civilian rule.

Employment rates based on information about graduating students, reported by schools and provided by the Ministry of Education, also show that vocational high school graduates are in demand. In 1994, 91.7 per cent of the mostly male graduates from industrial high schools who were seeking jobs had found employment by the time of the survey; among the predominantly female graduates of commercial high schools the figure was 82.9 per cent. This was higher than the 63.3 per cent of graduating university students who found immediate job placements in 1994 (*op. cit.*, pp. 162-163).

Market signals thus suggest a short-term reward for high school vocational education. On the other hand, labour market signals also indicate that there is not yet any relative over investment in university education. A study by Chang and Song (1993) estimated that the average private rate of return for university graduates was more than 16 per cent in 1988, while for high school graduates it was less than 13 per cent (Chang and Song, 1993, pp. 305-326). More recently, a KEDI study by Kong and Paik estimated that the social rates of return on investments in education as of 1994 were virtually the same at the high school and university levels: 7.2 or 7.3 per cent for males, and 6.8 per cent for females (Kong and Paik, 1995, pp. 197-201). In other words, the higher salaries of university graduates are still sufficient to compensate for both the public and private costs, including foregone earnings of students while they are in school. According to this measure, the labour market has not yet signalled that too many Koreans are attending

university. And although the percentage of university students seeking employment who find job offers at the time they graduate is lower than the percentage among vocational high school graduates, the university rate has improved from 60.1 per cent in 1989 to 69.7 per cent in 1995. In absolute terms, the total number of graduates grew by 13 819, and the number finding jobs upon graduation rose by 20 696. These figures indicate a strengthening of labour market demand for university graduates.

All countries face the problem of how to equip students for today's jobs, while also preparing them to meet increasingly unpredictable demands in the future. In most countries a large majority of parents also want their children to attend university, and this desire is especially intense in Korea. The overwhelming majority of Korean parents expect their children to complete a college or university degree : in 1993, 86.5 per cent stated this expectation for their sons, and 79.4 per cent for their daughters (KEDI, 1994, p. 33). Since vocational high schools are not designed to prepare students for the university entrance examinations, enrolling in a vocational high school has been tantamount to giving up on the possibility of reaching the university. At a leading technical high school for boys, we were told that only 10 per cent went on to tertiary education, and most of these to junior colleges, despite the fact that 70 per cent took the university entrance examination. It is apparent that students are very reluctant to give up their parents' ambitions for them to become university graduates. The strong social demand for university education militates against the present 50:50 enrolment policy.

The Education Reform Proposal for the "new" university offers in our view a bold strategy capable of meeting changing economic realities and satisfying the educational aspirations of parents and their teenage children. "New" universities are intended to expand the policy concept of what ought to be included under the heading of universities in Korea, the nature of study programmes that ought to lead to the award of university degrees, and the forms of institutional organisation that ought to be regarded as acceptable for Korean institutions of university status. The proposal opens up the possibility that, under appropriate conditions, selected vocational junior colleges will be authorised to teach and award degrees, and the degree programmes that are taught in the training divisions of corporate enterprises will be given proper recognition in the Korean tertiary system.

The objective at the institutional level is to strengthen co-operative arrangements between "new" universities and enterprises undertaking vocational education and training at all levels. The opportunity for vocational junior colleges is to be able to upgrade from two-year to four-year degree programmes. The promise for tertiary education as a whole is that high school graduates who are not now accepted for university enrolment will win places in this parallel stream of degree-awarding tertiary education. The expectation for the Korean economy is

that the “new” universities will strengthen and enliven vocational education and training in sectors that are vital to the country’s effective economic performance. The hope for individuals is that the recognition of their occupational field by the award of an appropriate degree will add both to the status of that occupation and to their own social status.

Whether the “new” universities will fulfil these hopes and expectations will depend on the effectiveness with which national policies provide the right incentives for high school graduates to choose the “new” university route. Three things will be essential to success. First, proper recognition will have to be given through the agency of the proposed credit bank to the degrees of “new” universities. We discuss this at the end of this chapter. Second, major improvements will be needed in the provision of open learning opportunities so that students who opt for the “new” university route can have reasonable prospects of completing a degree programme. Experience of the existing National Open University is not very encouraging in that regard: enrolment exceeds 200 000 students (many of them the same age as university students or a few years older), but only about 5 per cent of those graduate each year. Unless access to instruction and provision of credit can be improved, the “new” universities might continue to exacerbate the demand for higher education instead of satisfying it. The third requirement falls largely outside the realm of public policy, but the ultimate success of the “new” universities will rest on whether their graduates will be well recognised and rewarded in the market place.

We discuss in Chapter 3 (see section on “Improving quality in vocational education”) the important issues that are raised for the curriculum to be followed by high school students in preparation for vocational programmes taught at the tertiary level.

## THE LINK BETWEEN LEARNING AND THE WORKPLACE

One important reason for the growing necessity of lifelong learning is the accelerating pace of change in the workplace. Relentless improvement in the technology of information processing and telecommunications continues to speed the flow of ideas and of investment capital. Institutional investors and fund managers now quickly move huge amounts of money all around the world in response to news of emerging dangers or opportunities. Business firms must become increasingly nimble as market conditions and the availability of funds grow more volatile. Individuals must be prepared to participate in continual reorganisation, and to contribute to the continuous upgrading of technology and work processes.

Working people can engage in ongoing acquisition and updating of their knowledge and skill either on their own time or during work time. Koreans have

shown exceptional willingness to spend their own free time in education and training: one indicator is the number enrolled in the National Open University. This kind of continuing education, however, has two important limitations. First, the amount of time that is unencumbered by work and family obligations is limited. Second, the workplace itself is the best venue for certain kinds of education and training: specifically, that which is directly related to the development or implementation of new technology or working procedures. For these reasons, it is important that employers themselves provide time for education and training during working hours.

The Korean government has tried various policies to stimulate the provision of in-plant training by employers. The 1976 Basic Vocational Training Act imposed a training obligation on employers in mining, manufacturing, construction, utilities, transportation, communications, and certain services. Initially the obligation applied only to firms with more than 300 employees. The size of firm subject to the training obligation was reduced to 200 in 1990 and 150 in 1992. Companies that spent less than the stipulated minimum amount on in-plant training were required to pay the government the difference between the minimum amount and their actual expenditure. Most employers have chosen to pay the forfeit rather than provide the training. In 1992, for instance, 83.9 per cent paid the levy and only 16.1 per cent undertook the training (Ministry of Labour, 1994a). Consequently, the government decided to phase out the training obligation.

Starting in July, 1995, there was a significant change of policy. The former policy now applies only to companies employing more than 1 000 people. For all other firms with more than 70 employees, a new Job Ability Development policy has been instituted, as part of a larger Employment Insurance System. This new programme provides financial assistance to employers who absorb the cost of in-plant training and short training courses for employees. It also gives grants to companies that adopt a paid educational leave plan to accelerate employees' self-development. In addition, it offers loans or subsidies to firms that invest in training facilities and equipment, including joint investments by groups of small employers (Jang, 1995).

The new Job Ability Development policy reflects the government's continuing desire to stimulate companies to provide education and training. Although the workplace is the best place to acquire certain kinds of work-related knowledge and skill – and this is increasingly true as the faster pace of change renders such knowledge and skill more quickly obsolete – employers in all countries are reluctant to invest in education and training if they are likely to lose their investment due to employee turnover. In Korea, an average of more than 3 per cent of employees leave their place of employment each month, for voluntary or involuntary reasons (Ministry of Labour, 1994b, pp. 178-179). This creates a substantial

risk that employers will not be able to recoup their training costs. Whether the new government policy will suffice to overcome this problem remains to be seen.

An additional issue in Korea has been the reliance of large companies on formal educational credentials as a criterion for hiring. The large corporate groups that dominate the Korean economy have added to the intensity of educational competition in Korea by recruiting new managers and professionals almost exclusively from the top universities. That practice has contributed to “exam fever” because a good score on the university entrance examination has been so important in gaining admission to a top university and then to a top company. And young people who do not gain admission to university on the first or second try still struggle to obtain a university degree through the National Open University because many companies require a university degree for placement on the first rung of the management ladder.

Top companies now appear to be changing their hiring policies, however. In September, 1995 the Samsung group issued a brochure entitled ‘Open Society, Open Hiring’. It describes a transformation of company policies to promote open hiring, respect for individual personalities, and diversification of hiring patterns. It states that hiring at the entry level for managers, will no longer be restricted to university graduates. Furthermore, the test for hiring will now measure task-oriented problem-solving capacity, not retained information. The screening interviews will include some interviewers from outside the company, and will allow applicants to present ideas and ask questions. We were told that the new procedures were to be implemented starting in December, 1995.

If Samsung follows through on this initiative, and if other employers follow suit, the effects should be far-reaching. It would help to cool exam fever and reduce the urgency of obtaining a university degree at a young age. It should also help to open up new possibilities for learning by employees, in the workplace or on their own, some of which may build credits toward university degrees eventually. This could be a big step toward a more open, learning society.

## **NEW OPPORTUNITIES FOR ADULT LEARNING**

In the context of life-long learning, when we refer to adults, we mean Koreans who have completed high school. We have preferred to talk about new opportunities for adults rather than new provisions for tertiary education because tertiary education is at present identified in the public mind with the years immediately following high school. The Education Reform Proposals are intended to create opportunities for further education and training that will be taken up by adults who are older and may be much older than their late teens or early twenties.

## LEARNING OPPORTUNITIES THROUGH OPEN UNIVERSITIES

The Education Reform Proposals (ERP) acknowledge the importance of the contribution of open universities. We discuss some aspects of the ERP in Chapter 3 (see the section on “Opportunities for open learning”) in the context of quality. Here we note their importance for national policies aimed at increasing opportunities for life-long learning. The potential of such programmes to meet the changing requirements of enterprises in the face of technological innovation are as important as the promise they hold for individual men and women to extend, update, and deepen their knowledge and expertise. No less important should be their contribution to policies for community development which, endorsed by the ERP, are an important priority of the education reform proposals.

Until the last decade or so, opportunities for obtaining degrees have been very restricted. Admission to Korean universities is limited to students who have achieved the necessary ranking in the university entrance examination. University programmes require full-time enrolment. University study is therefore limited to a small percentage of the population and is available to them only at one time in their lives. As the ERP points out, the much greater flexibility of open university approaches makes it possible to envisage a great increase in the number and range of degree programmes that could be available to adults at any time in their lives under conditions that do not require full time attendance at the institution granting the degree.

It has become very evident in other advanced industrial societies that there is a burgeoning demand for open learning programmes among graduates whose undergraduate studies were in conventional face-to-face degree programmes. For increasing numbers of these graduates, a return to a conventional university to follow a graduate programme is unrealistic. They want to be able to pursue their further professional education at times and places and through study approaches that suit their personal, locational, and occupational circumstances. That is why we argue that the concept of open learning calls for a comprehensive policy response that includes the conventional universities as well as the “new” university sector and the open universities. It is also why we think it essential that the credit bank proposal should be worked through as an all-embracing policy that includes all university degrees, regardless of the kind of institution or agency teaching or proposing to teach a particular degree programme. In the short run, the greatest increase in post-graduate degrees and post-graduate professional programmes is likely to be in conventional universities. It will be very important that the criteria used for the authorisation of such awards are based on principles that are known in advance to the various stakeholders in tertiary education and training and, indeed, that their points of view can be taken into account when the academic and vocational components of such programmes are being worked out.

## CREDIT BANK PROPOSAL

We commend the ERP's for a national credit bank. If adopted, it will be the keystone of a developing system of open education and lifelong learning. Internationally, the concept of national or system-wide qualifications authorities and credit banks is comparatively new. It arises from a growing awareness of the changing requirements of societies where men and women must regularly refurbish their qualifications and add new ones as they take up, or prepare to take up, new occupations, or add to their knowledge and expertise for whatever reason. It acknowledges the fact that, in the explosion of vocational training now going on in all industrialised countries, new types of vocational qualification need to be assessed and brought into relationship with existing ones. In the course of a lifetime, large numbers of men and women will set out to study for new qualifications, and there will be questions to be resolved as to how much of their previous qualifications, or the extent to which the expertise they have built up during their career, can be credited towards such new qualifications.

There is another important consideration, too. It is inevitable that the authorities, universities, professional and other vocational accrediting authorities that have responsibility for admitting new members to their category of qualification, will become protective of the status and reputation of the qualifications for which they are responsible. In the contemporary world, where new industrial, commercial and social demands call for new requirements in vocational knowledge and expertise, this creates tensions between the gatekeepers of longer established qualifications and advocates of new ones. Some systems – Australia, New Zealand, British Columbia, for example – are developing their answers to this changing situation through the work of qualification's authorities with the statutory authority to make decisions on the equivalence of different qualifications in a national or system-wide framework of recognised qualifications. The Education Reform Proposal on credit bank is intended to create a national qualifications structure for Korea.

The essential issues that the national credit bank will have to resolve will centre on educational standards. Will a successfully completed programme of study at one level be a satisfactory basis for admission to study at the next level higher? By "programme" we mean the courses of study and any practical requirements that together meet the requirements of a recognised degree, diploma, or certificate. How can it be determined whether or not a study programme as taught in a particular institution warrants inclusion in the credit bank? Does a programme of study taught in an open university or a "new" university merit the awarding of a university degree?

A national qualifications authority will thus perform a necessary evaluative role. From time to time it will have to mediate between the views of different

educational and training interests when decisions are to be made on the kinds of recognition to be given to innovative study programmes. It must therefore be able to command the expertise needed to assess educational and training programmes for their effectiveness in translating curriculum objectives into teaching programmes, and for the educational standards in relation to which they judge successful performance by their students.

The tasks to be performed by a Korean credit bank will thus be much more than administrative. The bank will therefore need to have a board of directors which will be its policy-making body, and which should comprise men and women who have the confidence of the key groups in Korea with a direct interest in educational and training qualifications and standards at the tertiary level and in industrial training schemes. Because it will be a board that will have to make decisions in relation to which some of its members and the interests they represent will have differing views, it should be given an independent status in the national education and training system and its members should act in their personal capacity. Our recommendation is for a statutory body that is empowered to make and administer its own policies for the recognition of educational and training qualifications. Its responsibilities would encompass the functions listed in the beginning of Chapter 2. In the section on "Vocational and technical education" (Chapter 5) we endorse the Education Reform Proposals that government policy-making for education and training at the tertiary level be dealt with by the same ministry. We would see the board of the credit bank reporting to that minister, and it would be funded by that ministry. The authority we envisage would have an active, continuing role to perform and we think that, to underline both its role and its importance in Korean education and training, it could appropriately be called the Korean Qualifications Authority, or some similar name.

## THE QUEST FOR QUALITY

The notion of quality is at the heart of the Education Reform Proposals. Where, during the last 40 years, the nation has had to grapple with insistent demands for quantitative expansion of a national system, priority can now be given to a much-needed improvement in the quality of what is done in the name of education and vocational training. “The quality of Korean education must be raised to meet world standards” (Presidential Commission on Education Reform, 1996, p. 8).

But if that is to happen, there will need to be a paradigm shift in the theory and practice of Korean education at all levels. Globalisation is identified as the agent of change. The Education Reform Proposals (ERP) note that Korea “is faced with a new era where our ideas, institutions and systems can no longer be protected by national boundaries (*op. cit.*, p. 7).” In its view, however, the existing Korean education system is not only ill-prepared to face that challenge, it is dysfunctional. The qualitative changes that are needed cannot come from the continuation of existing policies.

The ERP’s critique of the present system is very severe. The system is excessively centralised, enjoins conformity, and offers little scope for diversity or innovation. School curricula, though changing, are highly prescriptive, allow little scope for local interpretation, and are supported by textbooks that reinforce the prescriptive nature of what is taught. Teaching and learning relies far too much on the memorisation and recall of fragmented knowledge. The college entrance examination reflects and reinforces these policies and ensures that they will continue,

Against this summary of the present reality, the ERP argues for a radically different educational ideal for Koreans. It wants Koreans who are:

- able to create new knowledge and know-how in all aspects of living;
- creative and inventive in their responses to new ideas and challenges;
- secure in their knowledge of their Korean culture;
- well informed about what is happening in the world;

- humane and peace-loving, and effective in their ability to communicate across cultures.

The ERP sees this ideal being achieved through “learner-orientated education” in which students and parents can enjoy a wide choice of educational programmes as a result of the intensifying competition among the educational institutions (Presidential Commission on Education Reform, 1996, p. 18).

## **CULTURAL CONTINUITY AND CHANGE**

On the surface, there is nothing surprising about the ERP’s analysis or the educational ideal it advocates for Koreans. Similar analyses have been made recently in virtually all industrialised countries in response to the same global influences that Korea is experiencing. Conventional ways of providing education and training are under criticism everywhere. There is wide international agreement about the qualities of educated persons that are required for a new educational order, and they are very much as listed above. In most western societies, however, that agreement is the cumulative result of developments whose educational implications have been the subject of widespread debate for a generation or more. Globalisation, with its attendant electronic popular culture, had its origins in the West, and the personal values associated with it have become familiar, though, in some important respects, contested in western industrialised countries. For Koreans, on the other hand, there are also deeply rooted cultural features that must be taken into account as important determining factors in their own right. East Asian cultural values and norms are so much in evidence in contemporary Korea that the question must be asked in any discussion of qualitative outcomes of education: In what ways will Korean criteria of quality in educational performance be *qualitatively* different from those of other, particularly western, industrial societies?

The possibility of difference can perhaps be brought out by comparing the roles of instrumental and expressive values in peoples’ lives. Instrumental values are the habits of mind, the skills and attributes required for the performance of practical projects. A globalising culture is placing great emphasis on the production of goods and services that are themselves the product of creative thought and application. Expressive values are the cultural attributes and personal responses that shape a person’s stance in his or her day-to-day living. The ERP says that some deeply ingrained Korean expressive values must change if the nation is to adapt to the instrumental values of globalising economies.

It cannot be, nor should it be a matter of discarding old things and blindly assimilating to new global norms. But the question for the Korean education system, as for any education system, is how far it can lead and how far it will reflect and follow change in the wider society. The conforming Korean values of

respect, deference, and obedience to authority are the cultural product of centuries of socialisation and are deeply entrenched. On the other hand, Korean society is part of the global village and is responding to new, external influences, one of whose most obvious challenges is to traditional Korean expressive values. It is the young people the world over who are the most welcoming of these influences, and Korean youth are no exception. This is creating tension between older and younger Koreans over a wide range of personal, family, and social values and issues that are expressions of personal choice and fall under the general heading of “life-style”.

Schools are the only publicly-funded social institutions that have the responsibility of selecting from the spectrum of expressive values and mediating them to the young people of each generation. This they do through the curricula that teachers are required to teach, the ways in which they interpret them and go about translating them into learning opportunities for their students, the expectations they have for those students, and the conditions under which teaching and learning takes place.

In terms of the quality of education, two broad questions are raised by the Education Reform Proposals (ERP) for achieving an appropriate mixture of old and new values in Korean schools. The first is a question about the compatibility of the values that are to be emphasised; the second is about the means by which officially enjoined values – whatever they are to be – are to be monitored and evaluated for the quality of what is being achieved.

## CONTESTED EDUCATIONAL VALUES?

It is widely presumed that all the values to be affirmed in a national or school curriculum should be internally consistent and compatible with each other. In the daily life of schools and classrooms, however, some activities and the values they are intended to foster receive more attention than others. There will regularly be occasions in classrooms that are learner-centred, for instance, when one student’s self-expression will be curbed in the interest of the larger group.

From the brief outline of the curriculum proposed by the ERP, it seems possible that some of the central values to be affirmed in Korean schools could be in conflict with each other. The report speaks of a “new curriculum for the cultivation of humanitarianism and the development of creativity” (Presidential Commission on Education Reform, 1996, p. 45). Creativity is the word that is used more than any other in its references to the curriculum and the desired ethos of learning environments. It is affirmed both as a criticism of the current school regime and to emphasise its central importance in preparing Koreans for a globalised world. It is also mentioned without explanation as if its educational

implications are self-evident. Experience in many education systems shows that this is far from the case.

The practical meaning that teachers will give to creativity, on the one hand, and to the formation of “humane character”, on the other, will of course be distinctively Korean. Respect for elders, obedience to authority, and knowing one’s place and acting in conformity with it are deeply embedded in Korean culture, and it would be unthinkable for the Korean education system not to affirm them. Korea is a convergent society, one in which great stress is placed on conformity to correct responses and forms of behaviour. The day-to-day operating question for Korean schools will be how to promote the kinds of divergent responses that are at the heart of creativity while inculcating sufficient convergence to meet the ideal of humane Korean character. The question for Korean educators will be to find out how, in the uniquely Korean situation, creativity *and* humane character are to be fostered together.

The other tension within the educational values proposed by the ERP could be between the emphases to be given to competition and co-operation. Most education systems live with this tension. Koreans, however, are a determinedly competitive people, and the education system, as the ERP make clear, is for every Korean the first public site where children compete with each other. It is far from clear to us that the changes proposed for admission to universities – important though these should be – will reduce the impulses to competitiveness among Korean parents. The competition that is proposed between educational institutions at all levels may make it more difficult for teachers to emphasise co-operative approaches to learning. For parents, it is presented by the ERP as a way of increasing choice, but choice is virtually synonymous with competition in that context.

These pressures seem certain to give a strong, continuing bias in favour of competitiveness in Korean education. Responding to such pressures, while at the same time inculcating co-operative forms of behaviour in the interests of democratic citizenship, will raise difficult issues of school and classroom management that will call for sophisticated professional responses from school principals and teachers.

We have highlighted these matters of educational values in our discussion of quality because they should not be dealt with as if the answers are self evident and can safely be left to the routine day-to-day work of teachers. The Education Reform proposes some increase in the involvement of parents in the administration of schools. But they would have limited scope for influencing the content of the curriculum, other than by selecting from among some course options. Experience in other countries, however, strongly suggests that, given a say in the running of their local school, groups of parents from within the wider parent community become active advocates of change in ways that they consider to be

educationally desirable for their own children. Typically, there are parents who favour creative approaches and want to ensure that teachers adopt them. Then again, there will be parents who want schools to maintain a traditional stance, fearing that creative approaches will undermine sound learning and proper respect for authority. Finally, of those parents who have strong views on education, some prefer co-operation, while others see competition as a necessary component of school and classroom management.

The Education Reform proposes a gradualist approach to change in the direction and management of schools, and divergencies of parental opinion of the kinds suggested above may not become a political factor in the management of local schools until some time in the future. But if we are right in thinking that Korean parents may well differ in their degree of support for some of the central values of the proposed curriculum, the new Korean education system will need to have processes, forums, and mechanisms that will allow such differences to be expressed and resolved in ways that will produce sufficient agreement to allow teachers in schools throughout the country to act in what can be said to be the public interest. That done, it would be possible to specify the criteria in relation to which schools could be said to be successful in fostering those key values in their students. And it would then be possible to devise ways of evaluating the quality of their performance in such respects.

## **CONSTRAINTS ON QUALITATIVE IMPROVEMENT**

All the changes proposed by the Education Reform have the aim of creating a different educational culture in Korean schools. In terms of its quest for quality, the ERP emphasise the influence of four pervasive constraining factors: textbooks; teaching equipment and supporting services; teacher-pupil ratios; and the professional education of teachers.

### **Textbooks**

Wherever they are prescribed and used, nationally approved textbooks exert a powerful determining influence on what is taught in schools. Where a single textbook is authorised for a subject or class level, the influence is profound. The textbook is in fact the curriculum.

The Education Reform proposes a new model for the production of textbooks. Instead of prescribing, approving and publishing textbooks, the MOE and local offices of education would provide guidelines in relation to which textbooks were to be written. Publishers would produce textbooks that met the requirements of the guidelines. The best textbooks would emerge through free competition and, over the years, this would bring about improvements in quality. Great

scope is seen for the use of electronic materials in addition to existing learning materials (Presidential Commission on Education Reform, 1996, p. 51).

It is not self-evident that competition alone will produce this desired result. Competition in many products, including textbooks in other countries, suggests that, in the absence of regulatory controls, marketing success depends on the effectiveness of marketing campaigns more than the quality of the product itself. If the Education Reform Proposal is to do what is expected of it, an entirely new approach to the purposes to be served by textbooks will be needed. Instead of being devised as a teaching tool for teachers whose large classes imprison them in a didactic teaching approach, they must be devised as learning tools for students who will increasingly have the space and supporting facilities for self-directed study. Textbooks that replicate those of the past will ensure that the teaching approaches of the past will extend into the future. Textbooks that are predicated on the assumption that they are launching pads for students' learning – a learning planned for, guided by, and evaluated by their teachers – will make a crucial contribution to the educational revolution that is required.

The guidelines in relation to which textbooks are to be written and the processes for evaluating and approving them will determine whether textbooks point the system toward the future or shackle it to its past. We would ourselves prefer the guidelines to refer not to textbooks but to printed resources for learning. We say that for two reasons. First, current textbooks are supported by supplementary printed materials of various sorts. It will clearly be important to reconceptualise what textbooks are in relation to such "supplementary" materials so that both kinds of print materials can be related organically to each other. Second, textbooks that are produced to support the learning needs of students will in most cases be larger than textbooks that are written for teachers. If they are to include materials that are now classed as supplementary materials, and if they are to be used in association with electronic learning resources they are likely to become very large, unwieldy, and inflexible. There is much to be said for taking topics or units of work rather than a teaching programme for a semester or a school year as the planning unit for the writing and publication of printed learning materials. Among the advantages of such an approach, sections of a curriculum that become outmoded can be altered or replaced without scrapping an entire textbook.

If printed learning materials are to contribute to a paradigm shift in Korean schooling, much more will thus be required than good working relationships between subject specialists, the traditional textbook authors and a publisher. The publishing guidelines that the MOE produces should be the product of close consultation among experts in curriculum design, child and adolescent development, learning theory, and educational media, as well as subject specialists and experienced classroom teachers. Each guideline should also set out the criteria in

relation to which printed learning materials are to be evaluated and their quality judged.

### **Equipment and supporting services**

An entirely new dimension in the provision of learning materials is now opening up through the application of information technology to educational purposes. Experience gained through research and development carried out by KEDI since 1988 provides a useful basis on which to build. The Education Reform rightly sees innovative approaches to the use of information technology as highly important in achieving its reform objectives.

Here we simply stress the importance of an integrated policy approach that ensures that textbook and multi-media resources are planned and produced in the closest collaboration. The question always to be kept in mind is: What *educational* contribution will particular kinds of equipment or supporting services make to particular learning objectives for students of particular ages and backgrounds. People at national, provincial/municipal, school, and classroom levels who have experience and insights to bring to the answer to that question should be brought together to make their contributions to policy-thinking on curriculum development, teacher education, school and classroom organisation, and the planning of school accommodation, equipment and facilities.

We are not necessarily implying that such teams be national policy development teams, although those working on policy that required the formulating of national guidelines, would be. Some would provide advice to publishers, producers of educational equipment, and providers of educational accommodation and services. But most would be located at provincial/municipal levels and their main aim would be to co-ordinate the various provincial and municipal initiatives for the qualitative improvement of learning and teaching

### **Teacher-pupil ratios**

Learner-centred education cannot be achieved in crowded classrooms where students are necessarily desk-bound and all the initiatives must be undertaken by teachers. It requires library space, specialised teaching spaces for science, art and crafts, and physical activities, spaces where teachers can work at times with one student or with small groups, and spaces where students can work independently. Everyone we met in Korea was very conscious of the direct bearing that teaching conditions have on teaching methods. The Education Reform Proposals recognise the importance of better teacher-pupil ratios, which are far below OECD averages, and we most certainly agree that they must be improved (OECD, 1995, pp. 178-180). But, as with all other changes intended to improve the quality of Korean education, better staffing ratios and smaller classes will not automatically

guarantee better quality. Careful consideration should accordingly be given in some circumstances to the possibility of investing in computer-mediated learning as an alternative to reducing class size. Korea might set up some experimental schools aimed at determining the maximum use that can be made of the Internet and other computerised resources for teaching and learning.

Throughout the 20th century, the one variable that, more than any other, has been the subject of research and argument has been the relationship between class size and learning outcomes. By being given such prominence, reductions in class size and better teacher-pupil ratios have often been treated as if they are the only improvements needed to improve the quality of teaching and learning. Having fewer students in a classroom will not do much to improve the quality of learning if teachers continue to teach in the same old way. Having a more favourable teacher-pupil ratio will not by itself improve the quality of learning unless the tasks to be done by the additional teachers are carefully targeted to make distinctively new contributions to a school's teaching strategy. Additionally, all teachers will need to be trained for their changed responsibilities, and school accommodation and supporting services will need to be adequately supportive.

Whether it is overall planning at the national or provincial/municipal level, or planning by the staff of a school, strategy is the key word. Plans for the employment of more teachers and for the design of additional school accommodation must be conceived in a wider context that includes the best professional advice on how schools for the future should be designed to facilitate learning and teaching approaches that are very much more flexible than is now typical in Korean schools.

The planning of principals and their staffs must also be innovative. If schools are to become learner-centred, school programmes of work must be designed so that that can happen. The knowledge of teachers with particular forms of expertise must be drawn upon both in the planning of programmes of teaching and learning and in their day-to-day execution. The greatest single challenge will be to integrate the contribution of school libraries and information technology to classroom programmes and the learning needs of individual students. For self-directed learning to be educationally valuable, students must have access to print, and electronic sources of knowledge that are timely, relevant, geared to them, and designed to challenge them to achieve the curricula objectives the learning materials are intended to serve.

We have chosen this example to emphasise the inter-related nature of educational planning for qualitative improvement. Having additional teachers on school staffing establishments ought to change the educational equations that Koreans have been used to until the present time. What principals and their staff are able to do will either be constrained or facilitated by the professional knowledge they collectively bring to their planning and teaching, by the design of the

schools they work in, and by the facilities available to them. The curriculum they are to teach, the textbooks and other printed materials, and the computer packages available for their use will for the most part be devised and produced elsewhere, and they will have to adapt them for their own teaching purposes. If planning at national and provincial/municipal levels is to facilitate the work of principals and teachers as they strive to give expression to the Education Reform Proposals (ERP), it must be undertaken in the closest consultation with serving principals and teachers.

The additional yearly expenditure on teachers salaries and the capital costs of new and remodelled school accommodation will be the biggest new items of expenditure for pre-school, primary, and secondary education. To ensure the best return on that expenditure, it will be imperative that the policies for these basic reforms are concerted with reforms in curriculum development, textbooks and multimedia, school and student evaluation, school and classroom organisation, and, above all, teacher education and professional development.

### **Improving quality in vocational education and enterprise training**

In the preceding chapter we endorsed the Education Reform Proposal to begin moving specialised vocational and technical education to the tertiary level. Here we suggest additional measures that would help upgrade vocational education in high schools and junior colleges. We also offer a word about firm-based training for individuals who have completed their initial schooling.

The movement to upgrade the theoretical content of vocational education has been evident in most OECD countries in recent years. It is a response to the perceived necessity to prepare for increasingly unpredictable demands of the future workplace. Broadly speaking, the changes have taken two forms. One is to require more study of academic disciplines before or during the period of vocational training. This means either that pursuit of a technical or commercial course of study begins at a later age, or that it takes more time. Either way, students include more courses in their study programmes, but the nature of those courses does not change.

A second approach has sought to create new curricula that combine academic and vocational studies. A broad industry or occupational theme such as electronics or health careers is used to focus instruction in the core academic disciplines. The intent is to enable students to satisfy prerequisites for further education while at the same time acquiring work-related knowledge and skills that would enable them to enter the workforce directly if they so choose. An integrated academic-vocational curriculum of this kind can give students a deeper understanding and appreciation of academic subject matter, by relating it to a context outside the classroom. Ultimately, the integrated approach may provide better

preparation not only for work that requires continual learning but also for other spheres of life where concepts and theories learned in school must be put to use.

Students graduating from such integrated high school programmes may decide at that point to go directly to work or to university, but if they subsequently change their minds, or if circumstances force them to change, they can move more easily to the other path. Integrated courses of study can be organised around broad industries or occupational clusters, such as health occupations, engineering and manufacturing, business and finance, or communications technology. Examples in other countries include the General National Vocational Qualifications in England and Wales, the new integrated upper secondary curriculum in Norway, the integrated course option being developed in Japan, and “career academies” and “career majors” in the United States. All of these efforts are relatively new. They reflect other countries’ attempts to solve the same problem facing Korea: how to give students knowledge and skills they can use in the labour market right away, while at the same time preparing them for a future of lifelong learning. The need for such an approach in Korea is indicated by a growing gap between university and high school graduates who are near the end of their working careers – a result presumably, of the relative inability of high school graduates to adjust to changes during their working lives (Choi, 1996).

Under the new regime of greater institutional autonomy and parental choice proposed by the ERP, high schools and junior colleges will have more freedom and incentive to experiment. Some of them may wish to create new programmes that integrate academic and vocational education. This is not easy, however. It requires, first of all, that teachers and administrators understand the concept. Since we are not aware of any such programmes existing in Korea now, simply exposing educators to the idea will take some leadership on the part of central and provincial/municipal authorities. After that, substantial time will be required for teachers from different disciplines to develop an integrated curriculum. For example, if the curriculum focused on natural resources, the team of teachers involved might represent the disciplines of biology, economics, agronomy, history, and mathematics. They would need time during the summer vacation, and planning time during the year, to determine how to align their courses and develop new interdisciplinary projects so that students might understand natural resource problems from the viewpoints of the different disciplines. Central and local authorities would have to make this possible. The MOE could provide further assistance by sponsoring the development of sample curriculum modules showing how integration can be achieved around themes such as health careers, business and finance, natural resources, graphic arts and communications, or manufacturing technology.

Another common theme in OECD countries in recent years has been the effort to include some work-based learning as part of the curriculum. In Germany

and neighbouring countries, work-based learning occurs as a major component of the apprenticeship system. Other countries, where apprenticeship is less prevalent, have been attempting to create something like it by forming partnerships between schools and local employers to provide work-based learning. This has mainly been confined to vocational programmes, but it has also been a feature of new designs for integrated academic-vocational curricula. Using enterprises outside the school as a location for learning enables students to experience the culture of the workplace and to practice with up-to-date equipment, which schools often lack. However, in countries where employers have not traditionally taken major responsibility for the education and training of young people, considerable preparation is necessary to ensure that students' time in the workplace is educationally worthwhile.

Korea is a case in point. It has been the practice since 1963 for students in vocational high schools to spend their last few months as interns in enterprises. It was reported to us, however, that these interns are often treated as probationary employees more than trainees. In the newly instituted "2 + 1" programme, where students spend their whole third year working, each enterprise decides whether to develop training plans, create a framework for defining and measuring trainees' growing competence, prepare workplace mentors, or adopt other practices designed to direct and monitor what students learn in the workplace. In short, there seems to be little shared infrastructure to support work-based learning.

One part of this infrastructure would be a set of relationships between teachers and employers. If work-based learning is to be a meaningful part of students' education, teachers must be involved in it. They should have a say in defining what students are to learn in the workplace, and they should help monitor students' experience. This involvement does not come easily, however, even in Germany. In Korea, as in many OECD countries, teachers usually lack experience in workplaces other than schools. In order for them to supervise students' work-based learning, teachers themselves must be given an opportunity to experience the workplaces where their students will be. In other countries where teachers have been given such opportunities, they have improved their ability to relate their instruction to current applications in the workplace.

Just as the quality of work-based learning for students requires careful preparation and monitoring, so does the continued learning of adult employees in the workplace. OECD countries that have attempted to promote continued learning for adult workers have found that managers and professional workers are more likely to use available opportunities than blue-collar or clerical workers. Special measures will be needed to ensure that new opportunities for learning at work do not merely widen the gap between those with more initial schooling and those with less.

Given the importance that the Education Reform Proposals place on the qualitative improvement of Korean education and training, we had expected the professional education of teachers to have been both broader in its scope and more detailed in its proposals for qualitative improvement than is the case in the ERP. The discussion is confined to teachers who work in schools, colleges and universities under the jurisdiction of the Education Act. But there is an increasing number of “teachers” carrying out training roles in vocational institutions administered by other government departments and in enterprises, who are not included. Their number will increase in the future, and it will be imperative that ways be found of giving them proper recognition, within the education professions, for their work as teachers, tutors and trainers. We take this up in the section on “The teaching profession” (Chapter 6). Here we discuss the Education Reform Proposals for teachers in pre-schools and in primary and secondary schools.

## **REFORMING TEACHER EDUCATION**

The role of and performance by teachers are, of course, crucial in building a coherent and top quality educational system. Today, however, the large majority of teachers are not equipped to face the increasing quest for educational quality. Teacher education should, therefore, be radically changed and improved in order to meet the challenges successfully.

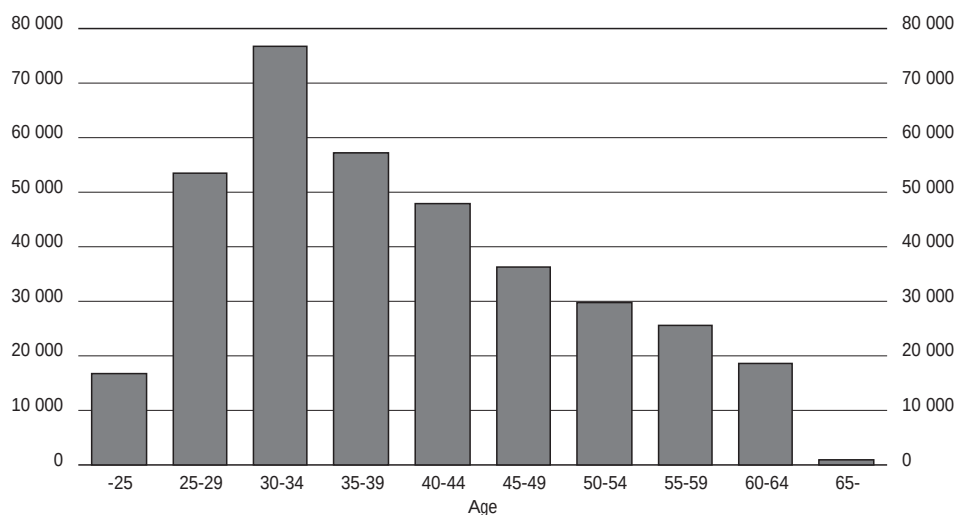
The main problems with the current teacher education seem to be that the curricula are out of date, the teachers out of touch, and there is an over-supply of under-qualified teachers. Some of the general problems are:

- Most of the professors at the universities and colleges have no school-based experience, which ought to be imperative in the education of future school teachers.
- Most of the colleges do not have a curriculum adequately designed for teacher education.
- There seems to be no direct linkage between the curricula at the colleges and the curricula in schools. Major fields in colleges and universities do not match important subject fields in the (secondary) school curriculum. In 1995, 55 per cent of all secondary teachers come from universities that are not specifically designed for teacher education.
- Teachers are recruited at a local level on the basis of selection tests administered by district education authorities. Undergraduate students focus narrowly on preparing for these apparently quite mechanistic tests rather than securing a broad basis for teaching.

- Teaching practice (in all 8 weeks for primary and 4 weeks for secondary) and pedagogical training play a remarkably minor and insufficient role in Korean teacher education.
- The salary rates of beginning teachers may not be sufficiently competitive with starting rates for graduates recruited to other occupations.
- It has been difficult to recruit high-calibre people to the teaching profession.
- In-service education seems to be restricted to teachers at certain promotion points in their careers instead of being related functionally to the changing requirements of the teaching profession as a whole.

It became quite clear to us during our visit that the government and the MOE recognised the vital importance of the role of the teachers and a number of important initiatives have already been taken. The 1991 law on improving teachers' status is one example and although it is difficult to evaluate its impact at this stage, it certainly indicates the will of the government to give the teaching profession a higher priority. This is also true of the Education Reform Proposals for initiatives to improve the quality of teachers' education, to raise the status of teachers, and to attract more high-calibre people to the profession. We consider the following items particularly important:

- There should be greater salary recognition for additional responsibilities and incentives for meritorious performance in teachers' pay schemes.
- Measures should be taken to renew teacher education curricula to make them more relevant to the current demands.
- Steps should be taken to reform the teacher recruitment system and the requirements for employment as a teacher. Undergraduate programmes should be brought into line with these requirements, and the successful completion of a teacher education programme should be sufficient evidence of initial professional preparation for appointment to initial teaching positions. Separate admission tests administered by district education offices should be dispensed with.
- Much more emphasis should be put on the use of information technology in teacher education.
- To ensure an adequate supply of new teachers with the appropriate specialised background to meet the very considerably increased demand for teachers that will be needed to reduce the size of classes at all levels, national policies will be needed to ensure that sufficient high school graduates with appropriate subject strengths are recruited to undergraduate teacher education programmes.

◆ Figure 3. *Number of teachers in each age group, 1995*

Source: Ministry of Education (April 1995), *Survey on Korea*.

Reforming the current system will, however, not improve the quality of the many teachers already in service. As demonstrated in Figure 3, the great majority of teachers are relatively young and will remain in the profession for many years. This means that a lot of importance should be attached to in-service education both in quality and extent.

We see initiatives in the areas mentioned below as particularly relevant:

- tendency of more and more institutions offering both pre-service and in-service teacher education should be further supported;
- the role of the apparently rather isolated provincial in-service centres should be reviewed.

In its third report, released in August 1996, the Presidential Commission sets out reform for the professional education of teachers that refer to these issues.

## REFORMING UNIVERSITY EDUCATION

Compared to international standards it becomes obvious that the university-sector of Korea faces enormous challenges which have to be dealt with successfully if Korea is to continue the remarkable growth and increase in wealth that has

marked the country during the past decades. Korea's determination to play a significant role in an increasingly globalised world has to be supported by profound changes in the predominant structural, organisational and institutional framework of the present university system.

Historically, the impressive Korean growth has been founded in relatively labour-intensive production and the country has, to a very high degree, relied on technology-transfer rather than its own R&D. This strategy has been followed by many NICs and other third world countries but rarely with results as impressive as Korea's.

It is widely recognised, however, that to sustain future growth and to secure the successful transformation from a manufacturing to a knowledge-based economy, thereby enabling Korea to become a major economic power, this strategy will have to be altered. As the quality of human resources is a main factor in determining competitive capacity in an open globalised economy, reforming and restructuring higher education must be a major priority. The urgency of the problems in adjusting the higher education sector to international standards is acknowledged in the Background Report (Part one of this volume) as well as in the Education Reform Proposals, and in the latter, many ways to solve the problems are pointed out.

As we see it, the implicit demands on higher education deriving from increasing globalisation can briefly be summarised in seven main points:

- The quality of the graduates should at the very least match the quality of graduates from economic competitors, *i.e.* if the growth in the knowledge-based sectors is to be continued the Korean graduates should at least live up to OECD-standards.
- The universities have to commit themselves to a very high degree of internationalisation. This is not solely a question of attaching more importance to linguistic training in foreign languages, but also of focusing more on transnational student and teacher exchange, international guest professors, foreign text books, etc.
- Information technologies, which are both a medium and catalyst of increasing globalisation, must be adopted into curricula in order to secure skilled and up-to-date graduates.
- A successful entrance to the premier league of world economic powers demands graduates who, beside a truly international outlook, are marked by flexibility, multidisciplinary and empathy. The development of these qualities in graduates has to be supported and promoted by the educational system.
- The global economic development characterised by increasing specialisation and niche-oriented production requires people with different and

specific competencies and specialisations and, thus, the possibility of a high degree of specialisation in non-standardised universities and colleges.

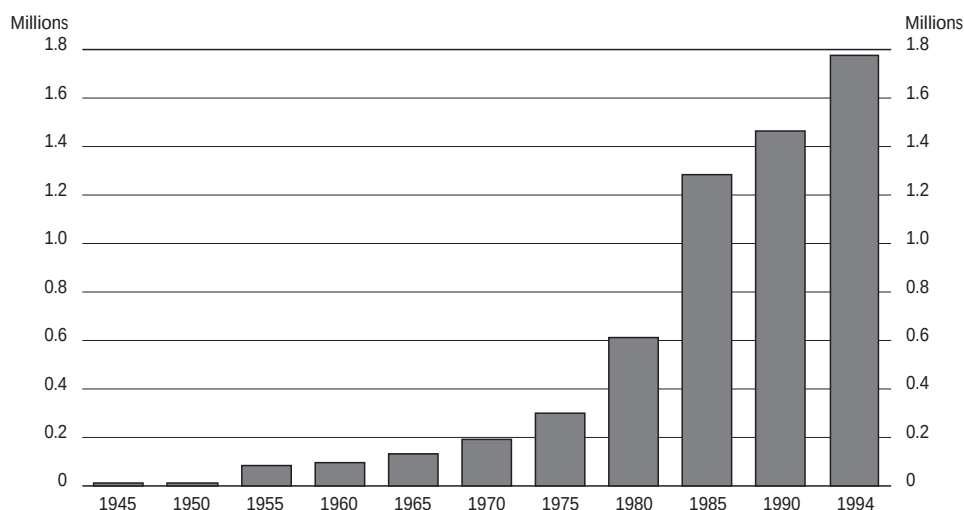
- One of the main traits of globalisation is the rapid development of new knowledge and technology and it is, of course, imperative that the newest knowledge and research results are transmitted to university and other tertiary students. This can best be secured by research-based education and close co-operation between universities and industry.
- The constantly changing demands on the work force makes a system of continuing and life-long education imperative, in which universities and colleges have an important role to play.

There is, as the Education Reform makes clear, a very strong political commitment within Korea to strive for these standards.

The overall problem of higher education in Korea seems to be that the structure, function, size and content of the universities have not kept up with the rapid development in other sectors of society, thus creating a growing discrepancy between what society as such demands from the universities and what the universities produce. The main task is to bring universities into step with developments in society. This is not an easy task, and enormous efforts will be needed to overcome a natural built-in conservatism in the system.

The explosive growth in the number of students during recent years lies behind many other problems. Figure 4 describes increases in the number of enrolments in Korean institutions of higher education since 1945. The number of students has tripled during the past 15 years. This growth has not yet been met with a sufficient increase in the number of teachers, new buildings, more labs and other facilities. Enrolment projections show a small reduction in demand by 2000 and a larger reduction by 2005. But, as we note in the section on “Public and private costs” (Chapter 5), the sector of higher education that can be expected to have the greatest demand for enrolments – the four-year universities – has been enrolling a smaller percentage of each age cohort since 1990. To maintain a sufficient number of places in the four-year universities (as well as in the “new” universities, open universities and junior colleges), and to raise standards across the tertiary sector to levels comparable with leading international standards, huge investments in buildings, teacher education, information technology, equipment and supporting services will need to be made. In fact, as continuing growth is expected, considerable investments will be necessary just to maintain the present level.

Raising standards in higher education to levels comparable with those of leading countries cannot, however, be reduced to a question of improving the financial support to the sector. To match the requirements imposed by the

◆ Figure 4. *Number of enrolments in higher education, 1945-94*

Source: KEDI (1995).

spreading globalisation and the consequent striving towards competitiveness, many fundamental changes have to be made at institutional, organisational, structural, and pedagogical levels.

## THE INSTITUTIONAL FRAMEWORK

According to the Background Report (see Part One), Korean educational policy has been marked by an immanent “conflict between the desire to guarantee autonomy in university administration and the government’s desire to regulate the universities for the public good”. Until recently, the governments desire to regulate the universities has carried far greater weight than the desire to grant autonomy. The Korean universities have thus been subject to a very high degree of control and regulation from the MOE.

This highly centralised system has created very uniform, inflexible institutions which in many ways do not match the requirements of a highly diversified and rapidly changing globalised world. The centralised system blocks new ways of thinking and it obstructs many local initiatives. Furthermore, it standardises the “product”, i.e. students, professors and researchers, to an unfortunate extent that does not match the increasing need for creativeness, flexibility, and adaptability.

The serious disadvantages of the current highly centralised system have been acknowledged by the Korean government. Since 1994 several important and far-reaching initiatives have been launched in order to promote the autonomy of the universities. One example is the granting of greater autonomy in fixing the enrolment quotas.

According to the Education Reform Proposals (ERP), several other commendable initiatives are on the agenda. These include autonomous decision-making in academic affairs, curricular diversification, and a higher degree of financial self-determination. We support the government's policy of granting more administrative autonomy to the universities and we strongly endorse these initiatives towards developing institutional diversity.

The growing decentralisation of administrative powers to universities necessitates some kind of public quality-assurance, which should also be seen as a support and inspiration to the universities in their own efforts to improve quality. The ERP recommends the establishment of an evaluation unit. It also recommends a linkage between the outcomes of evaluations and levels of financial support. Such linkages raise a number of issues, some of which are controversial at present in certain OECD countries. The methodologies that are developed in Korea will be of general interest to OECD Member countries. From the experience we gained during our visit, we see the Korean Council for University Education as a highly competent and dynamic contributor towards the development and assurance of quality and we assume that it will continue to play a vital role in further developments along the lines proposed by the ERP.

## **THE LACK OF RESEARCH**

The research functions of Korean tertiary institutions are not part of our terms of reference. But the interrelationship between research and quality teaching is so important that we could not leave it out of our discussion of educational quality. Korean universities have traditionally emphasized the function of education rather than research, which has resulted in rather sluggish R&D activities on the part of the universities. The public funding of Korean research has mainly been concentrated on the GRI's (Government-Supported Research Institutes), which receive 82.6 per cent of the public research-funding at the expense of the universities which receive only 12 per cent (1994). Altogether the universities only contribute to the national research effort, with around 7.2 per cent of the total expenditure spent on research (1993). Korea spends much less on university R&D (\$0.5 billion in (1993-3) than other comparable OECD-countries like Japan (\$12.3 billion), Germany (\$8.3 billion), France (\$5.1 billion), or United Kingdom (\$3.8 billion). In addition to the poor level of research, the lack of sufficient

funding is primarily caused by a lack of tradition, lack of adequate research-facilities, and an excessive teaching burden (OECD, 1996, pp. 57 and 161).

It appears that the poor level of research in both quantitative and qualitative terms is part of a vicious circle making it difficult to attract new, high-calibre researchers, which again makes it difficult to produce the kind of research results that could justify an increasing funding. Furthermore, there is very little mobility among the university researchers (both towards other universities and industry). In addition, according to the recent OECD review of the national science and technology of Korea, the university system is too inbred, with almost all of the faculty at each university being graduates of their own institution (*op. cit.*, p. 161).

The significant absence of research serves as an obstacles to Korea's joining the vanguard of a globalised world, in that:

- it becomes difficult to shift from Korean dependency on technology-transfer to a high degree of its own R&D;
- participation in research keeps the university professors up-to-date on the newest developments, thus securing up-to-date teaching which, of course, becomes crucial in a world marked by rapid technological developments;
- without significant research based at the universities, it is difficult to develop new high-calibre scientists.

The above-mentioned problems are to be considered very seriously and new measures should be taken to solve them. Among other things we suggest the following:

- Teachers at the universities – at least some – should be able to spend more time on research. Some teachers/professors should be conducting research full-time for fairly long periods.
- Research facilities should be brought up-to-date and enlarged to meet the growing number of students.
- Co-operation with non-university research institutes (*e.g.* the GRI's) should be stimulated.
- The number of Ph.D.s educated in Korea should be increased.
- Mobility among professors/researchers should be stimulated.
- There should be better co-ordination and co-operation between MOE and MOST.

## UNIVERSITY-ENTERPRISE CO-OPERATION

Until very recently there has been little co-operation for R&D between universities and enterprises, and this alarms us (*op. cit.*, pp. 106-108, 166-167).

As part of ensuring their survival, private enterprises will have to be at the forefront of technological development and will, therefore, be able to transmit the newest knowledge and technology and the most recent research results. Close links between university and enterprises will, thus, often be very profitable for the university-part, since it can secure up-to-date and relevant teaching at the universities. On the other hand, industry will often, at least to some extent, be able to profit from research results generated by universities. It should also be noted that empirically it seems that a close co-operation between universities and enterprises facilitates development and innovation.

There are, consequently, many mutual interests in co-operating. In order to stimulate the co-operation the Korean government has launched several initiatives, *e.g.*:

- Study Circle Programmes, which facilitate informal meetings of university-professors, industrial researchers, and GRI-researchers.
- Encouragement of R&D in local SME's. Small and medium-sized companies are encouraged to utilise R&D resources of universities in their regions.
- Government-supported centres of Excellence.

We highly endorse these initiatives. To these, two other initiatives could also, in our view, be added:

- Measures towards establishing exchange arrangements between universities and enterprises. This would allow members of university faculties to work for shorter periods in enterprises, while people working in industry would occasionally teach at universities.
- Compulsory trainee periods in private enterprises or at GRI's as part of curricula in university education.

## **TEACHING METHODS AND UNIVERSITY EDUCATIONAL CONTENT**

Radical changes in teaching methods will be needed to achieve the ambitious goals of more flexible, open-minded, creative, and emphatic people. The educational system must break with the present emphasis on memorisation of fragmentary information and the use of formal teaching methods and focus instead on teaching approaches and individual learning methods that foster the qualities mentioned above.

This can be achieved by supporting and stressing the concept of “learner-centred” education, which the government has already introduced as a goal at all levels. The deregulation of curricula and the growing self-determination of the universities should increase the potential for more flexibility, creativeness, and openness in the students.

We strongly endorse steps towards increasing institutional and curricular diversification. Such measures should be combined with measures securing the students' possibilities of self-determination and individual choices in order to advance broader qualification profiles and flexibility. We suggest the following:

- double majors should be accepted, which is rarely the case today;
- the rather mechanistic evaluation and testing methods used today should be replaced by more open-ended higher skill testing methods;
- measures that facilitate student and teacher mobility both nationally and internationally should be considered;
- trainee periods should be integrated into some curricula;
- credit transfer among the institutions should be formalised and made easier for the students.

In addition, in order to secure Korea's role as one of the leading countries in an increasingly globalised world, the educational system should make much more use of information technology, the "medium" of global integration. The new technology will need to be an integrated part of teaching methods in most subjects in order to secure skilled and up-to-date graduates. The Education Reform Proposals acknowledge the importance of such developments with its proposal for a multimedia educational centre. But the question has to be addressed far more seriously if Korea is to be elevated to international standards regarding the use and integration of information technology in the university sector. It will require general access to computers, the use of computer-based training, access to the use of electronic mailing, distance education, and so on.

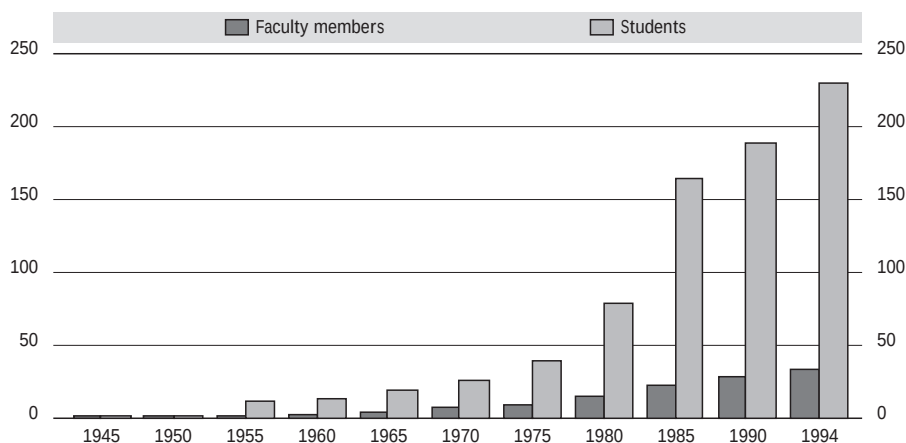
We have been struck by the extremely low drop-out rates in higher education. – 2.5 per cent – which is markedly different from other education systems. International comparisons do show wide variations, but nowhere do we find completion rates as in Korea. While we wonder how to interpret this principle of "*once in, you are safe*", we don't necessarily take it to be an indication of high quality.

## TEACHERS, STUDENTS AND INSTITUTIONS

The number of faculty members has not increased proportionally with increases in university enrolments and the number of students in relation to teachers now nearly doubles that of other advanced countries. In 1975 the student-teacher ratio in general was 1:20.9. Today it has soared to the level of 1:34.6 in general, varying from 1:50.5 at junior colleges to 1:26.8 at national and public universities.

Figure 5 below illustrates the relative growth in students and teachers since 1945.

◆ Figure 5. **Growth in students and faculty members**  
1945 = 1.00



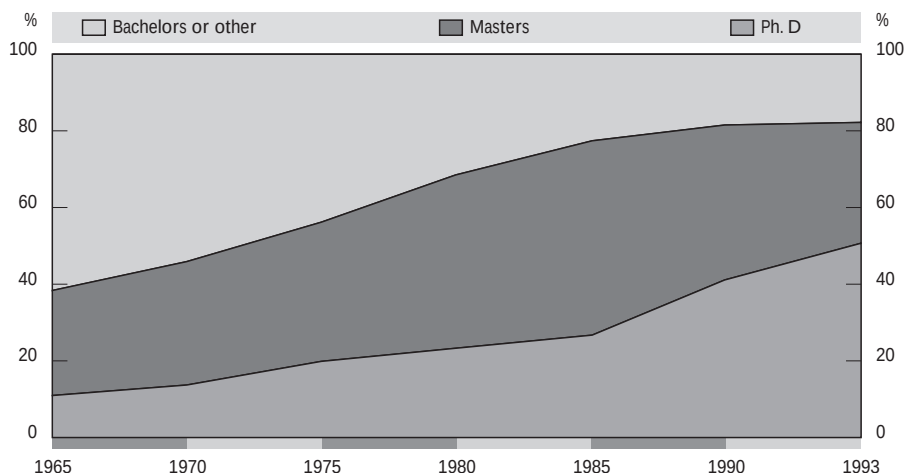
Source: KEDI (1995).

It clearly illustrates the problem now faced by Korea in striving for qualitatively better university education. As we stressed earlier, having fewer students in a classroom will not do much to improve the quality of learning if teachers continue to teach in the same way. However, the student-teacher ratio will have to be radically improved if the Education Reform Proposals' ideal of "learner-centred education" is to be arrived at. With a student-faculty ratio as the present, the teaching will necessarily have to be desk-bound and "teacher-centred".

In order to secure high quality university education and in order to secure the possibility of flexible, learner-centred education, we strongly endorse a radical improvement of the student-faculty ratio; through employing more teachers and professors. This is to be considered an absolutely necessary step if higher education is to meet internationally defined levels of quality.

As to the educational level of the faculty, Figure 6 below illustrates the development in the composition of the teaching staff by educational level.

As demonstrated by the historical overview of faculty composition (Figure 7), there has been a remarkable replacement of teachers with a relatively low level of education (bachelor degree or other) by those with doctoral or master degrees. Today about 51 per cent of faculty members have Ph.D degrees and around

◆ Figure 6. *Educational level of university teachers, 1965-93*

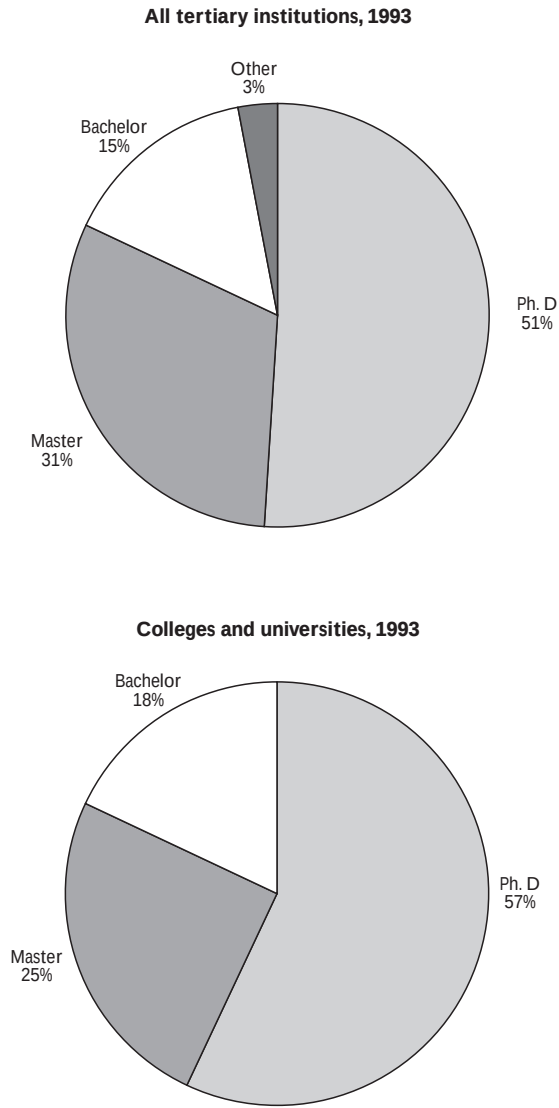
Source: KEDI (1995).

31 per cent Master's degrees in general. At colleges and universities 57 per cent have Ph.D.'s and 25 per cent Master's degrees implying that 18 per cent have a degree at bachelor level or below. At teacher colleges the figures are 42.1 per cent (doctorates), 43.8 per cent (master's), and 14.1 per cent bachelors and others) and at junior colleges the figures are 18.1 per cent, 62.6 per cent, and 19.3 per cent.

A prerequisite for quality education is, of course, highly-skilled teachers and researchers. Therefore, we consider it rather unfortunate that 18 per cent of the faculty at universities and college and 14.6 per cent in general have only bachelor degrees and below. We do, therefore, strongly support the rapid employment of faculty holding higher degrees.

To achieve this it is, of course, necessary to have a sufficiently wide and competent basis of recruitment. We understand that a large majority of the universities and colleges have established graduate programmes. The top level programmes seem to be very good, indeed, but we got the impression that quite a large number of the programmes were started without sufficient background in the areas of faculty, curricula, and facilities. More attention should therefore be focused on ways to improve the quality of graduate programmes, including the

◆ Figure 7. *Faculty members, 1993*



recruitment of foreign staff and a concentration of effort by reducing the number of programmes.

## **MOBILITY AND INTERNATIONALISATION**

As stressed earlier, measures supporting flexibility and learner-centred education should be taken. A very important step in this direction would be to improve the mobility for both faculty and students at the higher education institutions. This could, for example, be done by:

- institutionalising the credit transfer system;
- providing more information on other universities, colleges, etc.;
- providing economic incentives for mobility;
- facilitating exchange programmes with national and foreign universities.

## **OPPORTUNITIES FOR OPEN LEARNING**

Enrolments in open universities have increased dramatically during the last fifteen years. In 1993, 20.6 per cent of all undergraduate enrolments in Korean tertiary institutions were in open university programmes (KEDI, 1995, Table 12). The Education Reform places great importance on open learning approaches, and it is certain that enrolments in open universities will continue to increase as a proportion of all tertiary students.

It seems to us that, as currently provided for, open universities illustrate the ERP's criticism of Korean education, which is that quantitative expansion has been achieved to the detriment of the quality of the education provided. If pass-rates as measured by the successful completion of study programmes is used as a criterion, the performance of students in Korean open universities is low. In 1993, for example, Korea National Open University had 202 503 enrolments and produced 10 604 graduates. (Relatively low completion rates are common wherever students pursue qualifications through open learning institutions. This form of tertiary education is a long hard grind for those who embark upon it and calls for great dedication and application. Nonetheless, countries such as Korea that are, as a matter of considered policy, giving a much higher priority to open forms of learning must review the conditions for learning that they provide for such students and, specifically, they should discover to what extent those conditions are so unfavourable that large numbers of potentially successful students fail and do not complete the study programmes.

The quality of the performance of open learning institutions is receiving close attention in virtually all OECD countries, and our comments are made against that background. There is general agreement that well organised open learning comprises six components that must be effectively managed, and adequately

resourced if students are to experience learning of good quality. Briefly, these components are:

- *Study programmes* and the courses that comprise them must be designed for self-directed learning. This begins with an analysis of the learning objectives to be achieved during each course and a careful matching of those objectives to the prior learning and expectations of the target student population. It requires detailed planning of each course in terms of the scope, breadth, and depth of its content, the mode or modes by which it is to be delivered, and the supporting services that will be available to students within financial budgets.
- *Study material* must be learner-centred. Their content must match the course curriculum and there should be good congruence between those requirements and the standards and requirements of course assessments and final examinations. Study materials should be self-instructional, interactive, and user-friendly, and effective in the way they stimulate learning. Study materials will vary in the use that is made of audio, visual, computer-based multimedia and CD ROM, but they must always be based on and incorporate textual materials of the best quality the institution can develop or have access to.
- There must be *regular interaction* between teachers or tutors and their students and the quality of that interaction should be assured by the providing institution. All teachers and tutors should work to common, agreed standards. The nature of the interaction will vary but it must be regular and reliable.
- Each course of study must have an *assessment strategy* which alerts students to the requirements of effective performance on their part as they progress through the course, provides regular opportunities for them to test and evaluate their developing mastery, and provides prompt feedback in the form of marked assignments and tests accompanied by evaluative comment from tutors or lecturers.
- Students enrolled in open learning programmes must have ready access to a *student support system* which will handle registrations efficiently, provide information about courses and options, and distribute learning materials efficiently.
- As an essential feature of the management, open learning institutions must have arrangements for controlling and *assuring the quality of their institutional performance*. This calls for the regular review of all programmes and courses, the regular evaluation of their relevance and quality in relation to their objectives, and their outcomes in terms of student performance. Institutions should also, as an essential feature of the internal culture, give the

highest priority to making the personal and institutional changes that may be indicated by evaluations of the collective performance.

In the time available to us, we have not been able to assess the performance of Korean open learning institutions in relation to these criteria. The people we talked to who are actively involved in open learning institutions are fully aware of what is required of them in terms of good international practice. The speed with which the field of open learning is opening up in Korea means that it would be very difficult even under the most favourable conditions for open learning institutions to be performing effectively in all respects. Nor are we able to assess the financial, teaching, and other resources that open learning institutions have available to them. However, our impression is that, as elsewhere in the education system, the open universities are seriously under-resourced.

It seems to us that the kind of open learning that has developed in Korea is one that was once only available, in many countries, through correspondence colleges of one kind or another. Essentially it was a "challenge" system. With very little in the way of personal contact or assistance, students were allowed to challenge an examination system. They were enrolled and provided with study guides and some study materials and then left largely to their own devices as they prepared for final examinations.

An essential requirement for effective institutional performance is to have complete control and full accountability for all aspects of the functions to be performed. For open universities that means having the full responsibility for all six of the components listed above. At present, important elements, such as the provision of radio and television supporting programmes are produced by the Education Broadcasting Service, with what degree of consultation and co-operation with professors who are devising, developing and teaching open university programmes, we are unable to say.

We note here the Education Reform Proposal for the creation of a national multi-media centre and this prompts us to ask the same question: Will such a centre be a facilitator of media resources that open universities will use for their own purposes or will it be a provider of media products that open universities will incorporate in their study programmes?

The extent to which the open universities are able to employ their own tutors and the extent to which open university students are in fact tutored in private colleges are also questions that we have not been able to follow up. Our discussions left us with the impression that, as a result of the great increases in student numbers, the amount of direct contact that the universities are able to establish with their students is steadily decreasing. The loss to students is qualitative as well as quantitative. With many more students in each course, lecturers reduce and streamline their requirements for assignments and other forms of

course-work. It is our impression that much more use is being made of objective-type questions in university degree programmes than is justifiable on educational grounds. Certainly, the National Board of Educational Evaluation, which has the responsibility for examining candidates for the recently established Bachelor's degree Examination for the Self-educated, makes much more use of objective-type questions than we would expect to see at undergraduate level.

These comments are not offered as criticism of the people whose responsibility it is to provide open learning programmes. They are, no doubt, well aware of the shortcomings of the operations they are engaged in. Our comments are directed to the policy makers at the national level who will have the responsibility for ensuring that the functions of open universities are conceived, provided for, and managed in ways that will enable them to realise the very high expectations that the ERP has for them in the new Korean education system.

## KNOWLEDGE AND INFORMATION IN A NEW EDUCATION SYSTEM

More than any set of national reform proposals known to us, the Education Reform Proposal (ERP) has endorsed communication and information technologies as the spinal cord of a new Korean education system. Its vision of Edutopia is of “a society of open and lifelong education to allow each and every individual equal and easy access to education at any time and place” (Presidential Commission on Education Reform, 1996, p. 16). It is the educational potential of information technology that allows the ERP to envisage the future in these terms.

The ERP also proposes radical transformations of Korean education and training systems and here, too, the potential of information technology would be crucial to success. The centralised command structure of the present system concentrates knowledge and decision making powers in the minds of a comparatively small number of officials. However, a decentralised system in which education and training institutions have more autonomy and are to be held accountable for their own decisions will vastly increase the number of men and women who will be making decisions, and that will vastly increase the demand for knowledge and information relevant to those decisions. Here, too, information technology has the potential to provide decision-makers at all levels in a new education system with timely information – information that can be accessed on line as well as in print and which will be regularly updated and added to.

Information technology has the potential to facilitate these changes but it is not a panacea. Without question, the advances in the amount of information that can be accessed, the range of images, and the speed with which they can be transmitted, are breathtaking. Nonetheless, after several revolutionary generations in the development of communication and information technology, one general conclusion remains valid: if garbage is fed into a computer only garbage can come out. Any discussion of the *educational* uses of communication and information technology must therefore concentrate on the stores of knowledge that will need to be created and drawn on for the numerous software packages the new Korean education system will need to have. Irrespective of the medium – whether it is an electronic learning device or a book, or a teacher teaching a

group of students – the quality of the educational message will always be of paramount importance. In this chapter we review the reform proposals in terms of the new knowledge that will be required for a new Korean education system and make some suggestions as to how that knowledge might be produced and made widely available to Koreans.

## **KNOWLEDGE AND INFORMATION**

Information more than knowledge is the key word in the Commission's proposals. Where knowledge is referred to it is usually in the phrase "information and knowledge" (Presidential Commission on Education Reform, 1996, pp. 3-5) with no suggestion that the relationship between information and knowledge is in any way problematic. There is a reference to the "ever accelerating... turn-over of knowledge" but no discussion of how Korean education and training systems are to contribute to the development of the new knowledge that will be essential to the effective performance of the new education system. Obviously, however, the kind of knowledge, the purposes to which it is to be put, and by whom, are among the most important questions to be dealt with in the conceptualisation of a new education system.

We think it is important, therefore, to emphasise that knowledge and information are not interchangeable words. Knowledge cannot be reduced to information that may be derived from it, and the steady digestion of information does not by itself become knowledge. Knowledge and information belong to different conceptual domains and the quest for knowledge comes before the availability of information. More than that and more importantly, the nature of the quest and the kind of knowledge acquired determine the nature of the information that results. To encapsulate, knowledge is always the search for (and, in time, the answer to) a question for which there is not yet an answer, and information is a record of the answer when it is found, or, if not yet found, the current state of the quest. In the context of globalisation, this has great implications for Koreans and their sense of Korean identity, as it does for all peoples and their respective sense of national or cultural identity. The educational questions posed by information technology are: Whose information; in response to whose questions; based on whose knowledge; and for whose use?

## **INFORMATION FOR A NEW EDUCATION SYSTEM**

The adage that knowledge is power has never been truer than today. Societies that seek to empower people are also concerned with ensuring that they are able to have access to information that can facilitate their power of decision.

The Education Reform Proposals are a prescription for empowerment of district and local educational authorities, of schools and tertiary institutions, of

parents in respect of their children's education and of students in respect of their own, of workers in respect of employment prospects, and of teachers in respect of their professional careers. Information in many forms and for many purposes will be indispensable if institutions and people are to be empowered in the ways envisaged. Among the proposals for a "comprehensive support system for education" are information services that will assist universities in their quest for excellence, information services to enable students to select relevant courses, information for students about their aptitudes and competencies, information about the relative performance of schools and tertiary institutions, and information about distance learning programmes and the availability of electronic distance learning materials (Presidential Commission on Education Reform, 1996, pp. 19, 23-24, 30-32).

To rationalise the provision of such information and to set the policy for its availability, the Education Reform proposes a committee under Presidential supervision for the promotion of the education information service which would bring together representatives of the various government ministries with a stake in the matter (*op. cit.*, p. 32).

Setting up the physical infrastructure of educational information services is by now a straightforward technical activity in industrial societies with the capacity for the installation of sophisticated information networks. The nature of the information to be stored and made available, as we have discussed above, raises large issues about accuracy and reliability but we would expect them to be dealt with as a planned feature of policies for research and development. KEDI, for example, has already published a great deal of research-based information about important aspects of the Korean education system. Additionally, the Korean Council for University Education publishes information on the universities that have been the subject of its evaluation studies. These are examples of sources of information whose provenance can be accepted on the basis of the processes of research and evaluation that have produced them. Other kinds of information would need to meet similar standards of acceptability, and a national policy for the dissemination of educational information should have protocols and procedures that will safeguard the interests of institutions that will be reported on as well as of the public at large.

The most important question about public information systems – and the one that is often dealt with unsatisfactorily is: who is requesting the information? Since one of the main purposes of the proposed education information service will be to assist people to make informed decisions about educational matters that are important to them, it will be essential to know what these questions are so that the gathered information is capable of answering them. Inert information on matters that people neither want nor need to know about can be the bane of information systems, and too much inert information can discredit these systems.

The examples of users of information cited in the Education Reform Proposals are users of educational and training services and for them information services will provide valuable consumer guidance. No less important, however, in a decentralised education system will be the parents, members of school management committees, district education authorities, municipal and provincial government authorities, principals and teachers. They will need to know far more than they do now about the distribution of authority, power, and responsibility in the new education system. If that information is to empower citizens it will need to answer *their* questions, and be presented in ways that will encourage further constructive action on the part of the person who is asking a question.

### **“KOREANISED” KNOWLEDGE**

Some forms of knowledge are universal and others are not. Knowledge of physical and chemical properties is universal in its effects and applications, but knowledge of human interaction may well be relative to the culture or cultures upon which it is based.

The Education Reform Proposals for a new Korean education system raise many issues for which answers are to be found. These questions are global in the sense that the same questions are now receiving policy answers in many countries. The language in which those educational issues are expressed has also become global. The same list of policy objectives is at the core of educational reform in many countries: decentralisation, autonomy, efficiency, accountability, excellence, choice, competition, individual fulfilment, creativity. These are the central concepts of the proposals but, because they are to be nurtured in Korea, they will need to be given practical expression in ways that will make them culturally acceptable to Koreans. The questions for educational policy making are: What meanings do Koreans give to these concepts? To what extent do Koreans embrace them? What tensions do they introduce into traditional Korean values and ways of acting? What issues need to be worked through and what knowledge is required to enable Koreans to make informed decisions on them?

Informed answers to these questions in terms of the realities of Korean life and experience will require important additions to the present knowledge base. That must mean a major, continuing commitment by Koreans to research, development, and reflection on the impact of these new policy concepts on the life and work of education and training institutions in Korea. As examples, we discuss four fields where, in our view, concentrated research and development will be needed if a suitable basis of knowledge is to support policy development along lines proposed for a new Korean education system.

## KOREAN VALUES AND PSYCHOLOGY

In the beginning of Chapter 3, we discussed the curricular objectives proposed by the Commission and raised some questions about an emphasis on “individual development” and “creativity” in the context of Korean cultural values. Our remarks here are understandably based on studies by Korean researchers writing in English. We draw on the work of S.C. Choi and S.H. Choi and Uichol Kim who, as Korean psychologists, have raised the basic question of how far, if at all, discussions of indigenous Korean cultural values and psychological constructs can be conducted within discourses that have developed in Western societies and are largely conducted by Western scholars and researchers. The Chois research focuses on everyday life and seeks to understand the meanings that Koreans construct out of the day to day reality of their social relations. They have investigated the cultural significance of central concepts of Korean social life such as *Che-Myon*, *Cheong*, and *Noon-Chi*, and have concluded that they have no conceptual correlates in the English language. *Che-Myon* is roughly translated as tact, *Cheong* as social face, and *Noon-Chi* as language and responses that are careful to avoid giving offence. In other papers they have also analysed Korean attitudes to individuality and group behaviour (see Soo-Hyang Choi and Sang Chin Choi, 1990, pp. 29-45; Uichol Kim and Soo-Hyang Choi, 1991, pp. 1-31; Soo-Hyang Choi, 1992, pp. 1-21; Sang Chin Choi and Soo-Hyang Choi, 1994).

These (and no doubt other) researchers are exploring what we take to be central values of everyday Korea life, showing how young Koreans are socialised into them and in time construct a view of the world based on them. At one level, such research unpacks and explains the tacit knowledge that adult Koreans will already have of these cultural concepts. But by focusing on them as legitimate objects of research and discussion, it brings them into a public discourse, one purpose of which might be to see in what ways they may assist or hinder educational purposes that, as a matter of policy, Koreans might wish to have for their children and young people. How far Choi and Choi are correct in their discussion of the way some Korean university students feel about their sense of their own individuality as members of social groups is not for us to say. But the issues they raise will be at the heart of any policy to refashion Korean education so as to give appropriate weight to individual development and creativity as central aims of new school curricula.

At another level, Choi and Choi argue that the meaning that Koreans give to their own social and cultural experience is authentic in its own terms and should not be “explained” in terms of imported psychological constructs that cannot capture its existential complexities. We think this is a necessary stance for Korean educationists to take as they build and disseminate the knowledge that will be needed to translate the curricular proposals into widespread school and classroom practice in a new education system. It will call for an intellectually rigorous

and concerted effort on several fronts. We are talking here of knowledge which in time must become part of the stock in trade of parents and teachers as well as of educational policy makers, curriculum developers and researchers from several cognate disciplines.

We have taken the research of Choi and Choi as an example and we are not in a position to know to what extent other Korean social scientists are undertaking similar research. Nor can we say to what extent such research is part of the knowledge included in initial and in-service teacher education programmes. But it is clear to us that such research, and the public and professional debate it provides, must have a central place in any indigenous Korean discourse associated with a new education system. One of the attendant benefits of ideas generated by such research is that it is contestable. It is the work of named scholars, and not the authorised view of the MOE, a district office of education, or some other official body. As such, it is open to debate and the usual scholarly processes for testing new contributions to knowledge. The task of central government agencies, as we see it, is to fund and promote such research with the aim of strengthening a Korean discourse in education. The research itself should be undertaken by university teachers and researchers working in close association with practising teachers. The Education Reform Proposals for teachers themselves to play a bigger role in educational research will be important in developing such associations.

It goes without saying that such research is important for the future of education in Korea. No less important would be its contribution to the globalised community in which Korea expects to play a leading role. As a necessary counter-balance to the homogenising tendencies of globalisation, it would demonstrate not simply the distinctiveness of Korean cultural values but the nature of the human motivations that produce those distinctive relationships and forms of human interaction. For that reason alone, Korea's contribution to OECD educational forums will be valued.

## **SCHOOL IMPROVEMENT/SCHOOL EFFECTIVENESS**

As part of a commitment to educational excellence, the Commission proposes that schools be evaluated and the results publicised so that parents will know how schools compare. The funding of different schools would be based on the evaluations. Competition would drive schools to improve their educational effectiveness – whether to maintain or to improve their ranking. This chapter looks at the extent to which information about the educational performance of a school would be related to knowledge about how teachers in that school might improve their teaching effectiveness.

There is a strong interest in this matter in all OECD countries. Broadly speaking, two contrasting policy approaches inform the research and development that is going on. In one, the focus is on school improvement, in the other on school effectiveness. In the history of public education systems, different people, different agencies, and different organisations have tended to be more concerned about one than the other, depending on the kinds of questions they want to have answered about an education system. The question that is uppermost in the minds of teachers is how to improve the educational performance of their students and their continuing objective is to find the most effective ways of doing that. But a question that policy makers, politicians, educational commentators, and the public want to have answered is the overall effectiveness of all schools in an education system. The larger issue for educational policy-makers is how to devise ways of answering both of these questions in ways that are compatible with the work of individual schools.

As is the case in all countries, the issue of educational effectiveness is a priority with the Presidential Commission in Korea. The quest is for valid, reliable measures that will compare the educational performance of schools, and the pressure is to devise quantitative measures that will do so. The problem is how to do this without producing adverse backwash effects on many of the schools whose performance is publicised.

Recent research and development in England and Scotland illustrate that problem. The measures of school effectiveness are typically confined to quantitative measures of examination passes and correlation measures in relation to which schools are ranked. Regardless of its validity as a measure of *school* effectiveness, information of this sort cannot tell a principal or his or her teachers why their students have produced their particular school ranking or what they should do to improve their educational performance. It gives a snapshot of some educational outcomes but says nothing about the educational processes that have produced them (Brown, 1994, pp. 55-68).

In contrast, research and development falls under the heading of school improvement studies, focuses on the internal cultures of a school, on the prior learning of their students, on what its teachers perceive their educational task to be, and the processes that are at work in their daily interactions with their students. Such studies are intended to be unmasking experiences for all who take part in them. Once teachers, assisted by researchers, have analysed their situation, the next step is the constructive one of planning on how to deal with it and bring appropriate forms of professional expertise to bear on it. The way teachers construe their teaching situation must be the starting point of any process of organised change that seeks to enhance the learning of individual children.

The lessons from recent research in school effectiveness and school improvement are thus becoming clear. There must be good congruence between a

school's objectives and systems of evaluation that assess the extent to which its students are reaching them. The information that is gathered for school evaluations should relate to the knowledge teachers already have of the educational processes and should help them make decisions about the effectiveness of those processes. Rather than being conducted as if they were two separate activities, school effectiveness surveys and school improvement studies should be conceived and carried out as the two sides of the same coin. And the teachers in the schools whose work is to be evaluated should be active participants in such studies from beginning to end.

The major weakness of school effectiveness surveys, as they have so far been conceived, is that teachers cannot place the inert information gathered in an interpretative framework that relates to the knowledge they already have about the educational backgrounds of their students, what they, as teachers have done to improve their attainments, and what they might consider doing next. Korea has the advantage of being able to learn from the shortcomings of work in other countries and has the opportunity of initiating programmes of research and development that may be capable of producing information about school effectiveness that will at the same time contribute to the knowledge teachers need to guide their efforts to improve the educational performance of their students. That, as has recently been pointed out by people who are actively engaged in this aspect of educational research and development, presents a very considerable conceptual challenge.

"The research design that is required to study school improvement from a school effectiveness perspective is quite difficult and time-consuming to construct and implement... [It bears] out the old adage that the data one has tends to structure the way one sees the problems, and the way one sees the problems tends to structure the data one attempts to collect" (Gray, Jesson and Sime quoted in Brown, 1994, p. 59).

## **KNOWLEDGE AND KNOW-HOW FOR OPEN LEARNING**

The Education Reform Proposals give an overriding importance to programmes of open learning that will be supported by and in many cases delivered by means of communication and information technology. Education is to be available at times and places that are convenient to learners. Full use is to be made of multimedia, bringing together in one electronic learning installation text, sound images and visual images, whether as stills or video, with access through modems and CD Rom to data bases, libraries and archives. As well, however, as making education open to every aspirant, the Commission advocates "low-cost and high productivity" as the "basic principle of operation" (Presidential Commission on Education Reform, 1996, p. 30).

For Korea, with a population of 42 million or more and a limited number of places for students in conventional face to face universities, there is obviously good scope for the development of open learning programmes whose financial unit costs would be lower than comparable costs in conventional degree programmes. "Lower-cost" is, however, a very different concept from "low-cost". The drop-out and completion rates of students must always be kept in the forefront of any discussion of costs and, for open learning programmes, the amounts of money expended on the development of study programmes, tutoring, and support services for students has an important bearing on completion rates. The record of the United Kingdom Open University (UKOU) shows that it is possible to teach courses of the highest quality to students, support them closely in their study, and achieve very satisfactory graduation rates, and to do so at costs that are lower than those of conventional universities in comparable degree programmes. A recent study of the eight subject categories available through the UKOU showed that UKOU programmes ranged from between 42 per cent and 83 per cent of the average public funding used by conventional universities (Peters and Daniel, 1994, pp. 31-41).

In its quest for excellence associated with open learning, Korea would benefit from a close analysis of the policies of the UKOU and other leading distance institutions such as the Open Learning Agency (OLA), British Columbia, Canada, Monash University, Geelong, Australia, and the National Technological University (NTU) in the USA. In these and other leading open learning institutions, the prime concern is with the quality of the teaching and what needs to be done to convert it into effective learning by students who do not expect to have regular, face to face contact with the teachers of the courses they are studying. The NTU achieves this by entering into contracts with outstanding teachers and televising their teaching. The UKOU, OLA, Monash and others place great emphasis on the conceptual content of the courses to be taught and equally great emphasis on ways by which, using printed materials and a range of media resources, that content can be presented in learning packages that will challenge students to master the learning objectives of each course of study. The know-how of distance learning is as important as the knowledge to be taught.

All effective open learning institutions now maintain close links with their students through tutors and study centres. The means by which they do this vary and may be less significant than the purposes they serve. They provide academic guidance by tutors who are fully familiar with the subject matter of the course and who are capable of assisting students, whether individually or in tutorial groups, to find the answers to their own questions. Study assignments are marked, commented on, and returned promptly to students, who are in this way able to gauge their progress. The examination or assessment of students is the responsibility of the institution that provides the study programme. Among other things, this

ensures that the content of examination papers reflect the teaching objectives of the course that has been studied, and the marking standards are those of the institution whose study programme it is.

Our impression, as we note in the section “Opportunities for open learning” (Chapter 3), is that the practice of open learning in Korea falls a long way short of what we would call good practice as exemplified by leading open learning institutions. Nor are we confident that the Education Reform Proposals address the essential issues that bear on achieving educational excellence through open learning. Clearly, a new education system will want to harness the potential of multimedia for learning at all levels and for conventional teaching as well as open learning. But the national multimedia centre that the Education Reform proposes seems to us to be an institutional solution to educational requirements that have yet to be thought through.

For our part, we would begin with the conceptual nature of knowledge, the educational objectives to be served by any study programme (whether to be taught through open or conventional means) the content to be covered and the themes and learning outcomes be emphasised in courses of a given length, the standards to be achieved by students who successfully complete the course, and the tests and practical assignments that would demonstrate their understanding of what they have been taught. It may or may not be the case that the knowledge to be taught is covered in existing books and journal articles. Particularly, however, in fields where publications are from other countries, the amount of adaptation and cultural interpretation that is needed for their effective use is such that it is often better in the long run for institutions to produce their own teaching materials.

That is where the know-how of open learning comes in. Open learning is to be thought of as an educational technology in its own right. Effective open learning is a fusion of the knowledge to be taught and the pedagogy that will enable students to learn it. To achieve that fusion, the most effective open learning institutions are organised in teams that bring together the expertise of subject specialists, course development specialists, media specialists, and production and distribution specialists. The question of how to present new knowledge to students is the prime pedagogical focus of such teams. The media to be employed to that end and how they might contribute to the learning objectives of each study course are thus important matters to be decided in the context of each course to be developed.

This is another reason why we have serious reservations about the creation of a separate national media centre. Information technology is enjoying a prolonged honeymoon world-wide, and there is a widespread impression that it is the ultimate in communication. For educational policy-makers, this is a tantalising heresy. Every image that is transmitted by electronic means is the finished

expression of an idea that began in someone's mind. Therefore, since moving pictures and sound are elements of film, video, and television, those ideas are shaped, edited and presented for visual and oral reception. To that extent McLuhan was right to say that the medium is the message. It is but a partial truth. The choice of media available to educationists who are developing programmes for open learning are by no means limited to electronic multi-media. The messages they will want to convey to university students are essentially conceptual and the evidence of their success in conveying them to their students will be demonstrated by their students' understanding of what they have learnt. For the transmission of the ideas, principles, forms of logic, facts and inferences that constitute knowledge, words and printed texts are indispensable and must remain central to all educational enterprises, certainly at the tertiary level. The texts may no longer always be presented in books; they can be an integral part of a multi-media presentation or of a computer package. The word integral, however, remains the key. The educational questions to be asked of every multi-media presentation are these: In the way it is organised and in the images it uses, is it the expression of learning outcomes directly relevant to specific educational objectives? Do the images grow out of a text and enhance its meaning or is the commentary ancillary to the images?

The policy answers that are given to the questions we have raised about the institutional relationships to be developed between knowledge, educational know-how and information technology will determine the future of open learning in Korea. We argue for the primacy of the knowledge to be conveyed and the educational know-how that will influence the way it is conveyed. Important as they must now be in any system of open learning, information technologies are ancillary to the educational purposes to be served through open learning programmes. As a corollary, open learning institutions should control all the resources they will need to develop, teach and examine the study programmes for which they are responsible – that would make them accountable and autonomous in their policies and decisions.

## **BROADENING THE KNOWLEDGE BASE**

The Commission's proposals stress the importance of research as an important function of universities. Consistent with its views on globalisation, it places Korean research in an international context with the aims of strengthening working relationships with researchers in other countries, providing regular opportunities for Koreans to participate in international projects, and of raising the international profile of Korean research and researchers.

We have not been able to assess the educational research at present being undertaken by university teachers. We note, however, in the report prepared for

the OECD review of Korean Science and Technology Policy, that the contribution of university teachers to research and development has so far been rather small. When all sectors of research are accounted for, the universities have many more researchers than the government financed research institutes, and more than four times the number of researchers with Ph.D degrees, but they have allocated to them less than a fifth of the expenditure on R&D per researcher (MOST/STEP, 1995, p. 98). The report notes that, within the last few years, there has been a “sharp increase” in the amount of industrial research and development by university teachers with financial assistance from public and private funders. A number of R&D complexes have recently been established in major universities in an operation with industry.

The present situation is to be seen in relation to the policies of Korean governments for the promotion of scientific research and development since 1970. Government research institutes (GRIs), of which the Korean Educational Development Institute is one, have been the policy response to the demand of an increased national effort in research and developments. GRIs are self-managing legal entities, funded by the government for their core budgets and they get most of their income from government funded research programmes. During the last quarter of a century, the universities, for their part, have been preoccupied with teaching responsibilities associated with rapidly increasing enrolments.

We suspect, too, that there are attitudinal reasons as well for the comparatively small contributions of university researchers to government funded research and development. One is the preference, by no means confined to Korean university researchers, for pure rather than applied research. The kinds of research that government research agencies have been prepared to fund may not have fallen within their research interests. It may well be, too, that, speaking generally, Korean university teachers of earlier generations have not attached great importance to research and publication in their concept of themselves as university teachers. But our conversations with younger university teachers, most of whom have pursued post graduate studies overseas, leaves us in no doubt that they see research and publication as an integral part of their role as university teachers.

A strong, concerted contribution by university teachers to research and development in education and related issues of public policy will be essential to the success of the reform proposals. We strongly endorse the ERP's focus on research into teaching and learning in schools and classrooms and the emphasis it wishes to give to research undertaken by teachers themselves. Such teachers will need to be members of research and development communities with all the personal, technical, and professional support that they can provide.

Thanks to information technology, such communities can now be virtual as well as based on close personal contact. Researchers with common interests and problems can develop affinities irrespective of where they live. But whatever their community or their support group, educational researchers must have regular access to people with the knowledge and expertise that will be needed to enable them to conceptualise research programmes, design projects, select or devise appropriate research tools, manage projects through their various phases and cope with the many unforeseen issues that may well arise, and scrutinise and disseminate their findings. Well-founded, useful educational research is a sophisticated achievement that must be planned for. And because education is a field of study rather than a discipline whose boundaries can easily be fenced off, educational researchers must draw on expertise and insights from a wide range of disciplines in the humanities, sciences, and social sciences.

Much thought and effort will have to be directed to the creation of educational research communities for the new education system. There are very strong arguments for strengthening the research capacity of the universities that provide programmes of initial teacher education. University teaching that was informed by research and development in contemporary Korean issues would be part of the answer to criticism that the teachers colleges are out of touch. A strengthening research record would also qualify them for responsibilities for programmes for the continuing professional education of teachers. But we would not see the universities' contribution to educational research and development being confined to education departments, faculties or colleges. It will be important as well to draw university teachers in humanities, science, and social science subjects into research and development in Korean education. The aim should be to develop research communities around each university where the focus is on educational research and development and where university teachers from relevant disciplines work with practising teachers on programmes of common interest.

Korea already has in KEDI a valuable resource of knowledge and experience in educational research and development. In important respects it is a vindication of the policy for government research institutes under which it was created and a valuable legacy for the new education system. As its title implies, its research has a strong policy orientation and its studies and inquiries have been directed to the formulation, implementation and evaluation of educational innovation in the national system. As a national institute, it has also had the mission of pioneering Korea's contribution in various international communities of educational researchers. Today, KEDI and its researchers have a respected place in those communities. The levels of expertise of KEDI researchers, the range of their contribution as exemplified in KEDI's publications, and the knowledge which, collectively, they have of educational development in Korea are impressive. As visitors whose task it has been to become familiar with Korean education in short

order, we have tested that knowledge at many points and found it to be informed, appropriately research-based, and judicious.

That knowledge and expertise will also be valuable for the MOE, universities, district and local educational authorities, and the teaching profession as the national commitment to educational research and development is devolved and diversified. The nature of KEDI's continuing role will no doubt be modified in some respects. As other research organisations develop their expertise and establish a reputation based on the quality of their research and development, we would expect the MOE to share some of the development projects that have been managed by KEDI. And in a country with the population of Korea, it should become a matter of policy to have more than one nationally funded development programme in any field. With an increasing commitment to the expenditure of more public money on educational research and development, important questions of quality assurance will arise and we would see the MOE calling on KEDI to devise systems of evaluation, supported by appropriate training. Certainly, we would see KEDI continuing as Korea's pre-eminent research and development agency in education, and a very important bridge to international research and development communities.

## THE DYNAMICS OF NEW KOREAN EDUCATION

Strict regulatory measures”, the proposals argue, “have stifled creativity among educators” (Presidential Commission on Education Reform, 1996, p. 66). To replace what it sees as an inert system, it proposes a new one with radically different internal dynamics. It would be a national system for which, after appropriate consultation, control agencies of government would determine the legal framework within which institutions and education and training authorities would carry out their responsibilities, the policy guidelines in relation to which they were to be accountable, and the standards of performance in relation to which they would be judged. The intention is to unleash the creative responses of teachers and their students. To enable that to happen, the Education Reform Proposals (ERP) emphasise decentralised decision-making, institutional autonomy and accountability, and the involvement of parents and other stakeholders in the running of the proposed new system. The ERP also wants private schools and universities to be freed of the present tight regulatory controls, and the private sector to play a significant role under new policies for education and training undertaken by enterprises. The potential of information technology would be harnessed both to increase educational opportunity, particularly for adult Koreans, and to create the infrastructures of information essential to the successful operation of a decentralised system.

For educationists in OECD countries, this is a familiar prescription and it underlines the global nature of current debates about effective ways of managing important public functions such as education. Familiar, too, is the importance that the ERP gives to parental and student choice and to institutional competition, with the aim of raising standards in a quest for excellence in education. Familiar, as well, is a concern to balance the consequences of individual choice with continuing social obligations to remove educational inequalities. The Education Reform Proposals put it this way:

“The governing principle of education is that every individual should be given every opportunity to develop his or her potential to the maximum extent, while disadvantaged people should be given help to overcome adversities in receiving quality education. Excellence in education is only

guaranteed by the satisfaction of both freedom and equality” (Presidential Commission on Education Reform, 1996, p. 19).

The ERP proposes that these principles be written into the Education Act. General principles are, however, always coloured by time and place. Korea is seeking to give organisational expression to them at a particular and a very important moment in its history. It is doing so against the background of a long tradition of minutely regulated central government. We were told more than once during our visit that “Koreans” will have to be forced to act autonomously, so strong is the sense of personal obligation to the dictates of central authority. At the same time, however, a younger generation of Koreans is acquiring positions of influence in Korean education. They have lived in other countries, are well informed about current international debates in education, and think of themselves as members of a global culture. They are an important constituency in favour of change.

Koreans are in the process of creating the institutions of civil society. A democratic form of presidential government has been restored at the national level. In elections held in June 1995, all members of provincial and municipal councils were democratically elected. The new education system is to be organised in relation to the developing powers and responsibilities of those authorities with the aim of increasing the participation of Korean citizens in the conduct of public life at all levels, local, municipal/provincial, and national.

The task of reform that Korea is now embarking on is accordingly very different from educational reforms in most OECD countries. On the one hand it is comprehensive in its intended scope; on the other, the forms of experience and the formal and informal structures that will be needed to give local and institutional impetus to the reforming intention are either uncertain or still to be created. The question that Koreans are setting out to answer is: How to decentralise a system that has yet to create the institutions of civil society that are necessary for the successful operation of a decentralised system? The task confronting the Education Reform Proposals and stakeholders in the present education system is thus a daunting one. The approach outlined in the ERP is a mixture of boldness and caution: the vision for the longer-term is bold but the initial steps would be cautious. The ERP is emphatic that the system must change and it has expressed its vision for the future with equal emphasis. But on some issues that are central to its intentions its proposals are spelt out only in general terms. There are good reasons why it has not, at this stage of its mandate, been more specific. Later discussion documents, written on the basis of responses to the first one, will reflect public and professional responses, and will no doubt be more specific in their detail.

That necessarily presents the writers of this review with a special sort of challenge. The organisational structure of the system we are examining is about to

change. The direction of change has been signalled, and we have had the benefit of discussing the proposals with leaders in the Korean educational community. When our report will have been completed, the public discussion in Korea and the Commission's response to it will have moved ahead and the points we are about to make may no longer be particularly relevant. But it seems to us that, as presented in *Educational Reform* in May 1995, the Commission's proposals, though stated in broad general terms, raise some important questions of policy upon which the views of outside observers may be of some interest.

Our discussion of the dynamics of the new Korean education system considers possible effects of changes in responsibilities and working relationships under the following headings:

- the roles of central agencies;
- district and local administration;
- the professionalism of teachers;
- evaluating educational performance;
- public and private costs;
- parental choice and public good.

## THE ROLE OF CENTRAL AGENCIES

Simply by being set up, the Presidential Commission has changed the way the various agencies of central government carry out their responsibilities of education and training. The Commission was set up by the President and reports directly to him. To ensure an effective working relationship with ministers and senior officials, the Prime Minister chairs a co-ordinating committee on matters that are proposed by the Commission and approved by the President. New priorities for government decision and co-ordinated action are thus the most immediate result of the Commission's work. And because these priorities relate not only to changes in the inner life of educational institutions but to the way the central government organises itself to initiate and direct those changes, the central government is changing its ways of working as well. Important questions for the future are the extent to which the high degree of inter-ministerial co-operation now required to carry out Presidential decisions in education will be needed when the Commission completes its work in February 1998, and how such responsibilities should be managed.

Some matters will clearly continue to require the closest co-operation among several ministries. Finance for educational development in its various forms is the most important of these, and co-ordinated action is being taken under the direction of the Prime Minister's office (Presidential Commission on Education Reform, 1996, p. 74). The Education Reform's recommendation that government spending

on education be raised to 5 per cent of GNP by 1998 has been adopted, and the ministries of Finance and Economic Planning, Education, Home Affairs, Trade and Industry, and Construction will develop plans for the expenditure of the additional money in the light of policy decisions associated with the Commission's proposals. Some of these proposals, notably those for the continuing education of adults and community development will also require close, continuing co-operation among several ministries. Chapter 5 of the Background Report (Part one of this volume) lists seven ministries and numerous national and provincial advisory committees with responsibilities for various aspects of the education of adults. For lifelong learning to assume the importance that the Education Reform Proposals require, additional public funding will be essential but, equally important, the policy purposes for which that money is to be spent will need to be directed by clear, overall government policies.

Other matters will require the reconceptualisation of the responsibilities of existing agencies of central government, most notably those of the MOE. No one should underestimate either the conceptual or the practical difficulties that face the MOE. If the institutions of civil society were more fully developed than they now are, its repositioning in the national system would be much more straightforward. Responsibilities that have until now been centralised in the MOE and its regional offices could be devolved on to provincial/municipal authorities and the management committees of local schools. But apart from the universities and colleges in the tertiary sector, there appear to be no non-governmental agencies that can at present be considered for the immediate assumption of such responsibilities. Nor, so far as we are aware, is there yet a public consensus about the nature of the inter-relationship to be established between provincial/municipal authorities, on the one hand, and single-purpose education authorities on the other.

Korea thus does not have the option (recently taken in England and New Zealand) of making a complete break with its former mode of educational administration at the local level, thus freeing its central ministry of former responsibilities. The Education Reform proposes a gradualist approach, with school managing committees being introduced on a trial basis in some school districts, and with the MOE and its district offices managing those trials. The MOE thus has the difficult dual responsibility of transforming itself while it both administers the existing school system and manages trials that are intended to replace that system. In terms of institutional and personal dynamics, the question is whether the officers of a ministry that is perceived throughout the country as a control agency of central government can recast its role as a change agent in the interest of local empowerment.

In such situations, where the various parties are thinking their way into new responsibilities and relationships, it is important to design and carry out

evaluative research as an integral feature of trial schemes. Information that can be fed back to the parties by neutral observers of what is actually happening can become an important component of the trial itself.

The university and college sector is better prepared for reform than the school sector. The number of institutions – 53 national and public and 272 in 1995 private – is smaller and they all have their own forms of internal management. Through their teaching faculties they can draw on the experience of institutions of higher education in other countries. They already have some experience of submitting themselves to processes of internal and external evaluation and accreditation. The Korean Council for University Education (KCUE), a non-governmental independent legal entity, has been developing evaluation procedures since 1982. Since 1992 it has been recognised by the MOE and the universities, public and private, as the accrediting agency for educational programmes in all four-year colleges and universities in Korea. The KCUE draws on expertise from within the university system for evaluation teams that carry out two kinds of review: departmental and institutional. The KCUE plans to evaluate all Korean universities on a seven year cycle.

It seems to us that the KCUE is a good illustration of the approach to quality assurance that the Education Reform Proposals wants to see developed for educational institutions at all levels in a new Korean education system. The KCUE stands at arm's length from the central government, though the MOE has a seat on its council. The power it has to confer or withdraw accreditation is one whose significance all university teachers would recognise. It has a collegial relationship with the university teachers whose performance is to be evaluated and accredited. Its evaluation reports are intended to improve the performance of the departments and universities that are reported on. The experience that university teachers gain by being members of accreditation panels can be useful in the future academic development of their own departments and universities. And the information that is made available to the public through KCUE reports and other publications is vital for high school students and others who are seeking admission to universities and to all who want to know how Korean universities are performing.

There are two provisos to these comments. Teachers at all levels of education systems in all countries develop professional conceptions of what it is that constitutes good teaching and effective learning. Any system of evaluation must respect those conceptions but it should also be subjected to the scrutiny and challenge of other views about educational outcomes. In terms of the changes that the ERP is seeking to bring about in Korean education, it will be essential that the policies of evaluation bodies and the composition of accrediting teams incorporate an appropriate balance of the viewpoints of teachers and others with a direct interest in the results of their work.

The second proviso relates to the Education Reform Proposals for obtaining degrees outside the present university and college system. It will in our view be essential that the evaluation and accreditation of teaching and learning in “new” universities and in enterprises be informed by policy principles that are comparable with those that will be applied to the four year universities and colleges. This will raise some intrinsically difficult issues of comparability between degree programmes which, though in the same discipline or field of study, will be studied under different conditions in different learning environments. If, however, tertiary education is to be diversified in the way envisaged by the ERP, and if the quality of the various kinds of degree programmes are to be assured to the public, then some common criteria will need to be applied to the evaluation of degree programmes wherever and however they are taught and studied.

In its proposal for the “legal stipulation of criteria” for new universities, it seems to us that the ERP also takes this position. The committee would work at arms length from the MOE and would comprise “educators well experienced in the administration of university education, industrialists, lawyers, journalists, parents and the officials of the concerned government agencies” (Presidential Commission on Education Reform, 1996, p. 24). Such a committee would be well qualified to assess the criteria to be met for the establishment of the new university institutions that the ERP has in mind. The committee would need to keep well informed about comparable developments in other countries where similar policy issues are being worked on. In addition, the committee would need to monitor the degree to which institutions adhere to the terms of their mandate. Such information could be provided by a KCUE with a broader mandate.

The other relationship to be considered will be with the ERP’s proposed credit bank. The ERP envisages a close relationship between the new university institutions it proposes and the credit bank (*op. cit.*, 1996, p. 28). The most important thing about a national credit bank will be the policy direction under which it operates. Because the credit bank will include a wide range of recognised qualifications, from certificates to degrees, it will have to have broadly based community support, and that will need to be reflected in the composition of its deliberative bodies and the policy criteria in relation to which qualifications are to be assessed. We think that the credit bank should be under the jurisdiction of a broadly representative independent legal entity. University interests would be included on such a body but it will be important that the practical requirements of lower level awards, such as certificates, are given proper weight.

## **A NATIONAL MULTI-MEDIA CENTRE**

The Education Reform proposes the establishment of a National Multi-Media Centre for Education as an autonomous, government funded body. It would

“develop and manage the whole spectrum of multi-media materials and make them available to learners at the time and place of the learner’s convenience”. It would develop multi media software and support the development of such materials, develop learning materials for use in the credit-banking system, provide teacher training, and consult other agencies involved in distance learning and in teacher training (*op. cit.*, 1996, pp. 31-32).

Making the most effective use of information and communication technologies is at the heart of the ERP’s vision of a new Korean education system, and it will be essential that the central government is able to call on the technical and educational advise it will need to make wise policy decisions on a bewildering array of technological issues. We think, however, that the government should distinguish between the knowledge it will need to make national policies for the use of multi-media and the ways by which multi-media educational technologies are to be developed and used. The central question for educationists must always be the *educational* purposes to be served by information technology. The policy questions for governments are thus how to use information technology in the service of curricula objectives, how to employ them in the production of teaching and learning materials that are appropriate for learners of various ages, how to ensure that the teaching and training professions are well informed about the advantages and shortcomings of particular forms of equipment, the priority that should be given to particular forms of information technology in relation to expenditure on other ways of improving teaching and learning, how to plan learning environments that will make good use of media equipment, and how to assess the size of the funding component that should be included in school budgets for multi-media for educational purposes.

To make sound decisions in matters of general policy, it is as important to be well informed about the practicalities of schools and classrooms and the professional expertise of teachers, as it is about the educational potential of particular forms of educational technology. To that end, we would see the MOE managing a “think-tank” operation comprising educationists, educational researchers, curriculum developers, experienced principals and practising teachers together with experts in the use of information media for educational purposes, textbook writers, and developers of other educational services for teachers. The aim would be to provide the MOE with informed, broadly based policy advice for national policies for the educational use of multi-media.

Experience in other countries leads to two conclusions about policy advice for the use of information technology: information technology should not be considered apart from other means of improving the quality of teaching and learning; and the enticements of experts in information technology should be tempered by the practical knowledge of principals and classroom teachers.

For these reasons, among others, we would prefer to see the development of educational multi-media take place not in a single-purpose national centre but in many places throughout the country. Open universities and other open learning agencies should, as the ERP notes, have an active involvement, but they should also control, develop, and manage their own policies for multi-media and be accountable for them. Their participation should be on the same basis, because information technology has much to offer conventional universities and schools. In our view, then, the appropriate focus of experiment and development in information technology (as in other initiatives for the improvement of teaching and learning), should be at the level of the province/municipality. The innovative abilities of local teachers could be developed here, in co-operation, whenever possible, with funding from local enterprises and elsewhere.

We note here that the Korean Educational Development Institute (KEDI) has done important innovative work on the educational uses of television and information technology. In this field, as in several others, KEDI has an important role to play as a source of national and international information for policy development at the national level and for development activities throughout the country.

## **VOCATIONAL AND TECHNICAL EDUCATION**

The Education Reform proposes that vocational and technical education be “placed under management of the state to ensure that the quality is appropriate for the era of information technology” (Presidential Commission on Education Reform, 1996, p. 24). We endorse the proposal. Again, the policies that Korea adopts to harmonise national policies for education, vocational education, and industrial training will be of close interest to OECD countries, virtually all of which have found it necessary to revise their own policies in recent years.

## **DEREGULATION**

The Commission proposes the establishment of a Committee on Deregulation to advise central government authorities on ways of keeping regulatory controls to a minimum. The committee would comprise professionals, committed to the public interest, teachers, students and parents, and it would have a wide purview. Such a committee would act as a necessary watchdog for the broad objectives of the ERP’s reforming intentions, and we endorse the proposal. If the new system is to be successful in devolving authority and power to agencies and institutions other than those of central government, such a committee will be a necessary protection.

## DISTRICT AND LOCAL ADMINISTRATION

In Korea, as in many other countries, different interests in the national community have conflicting views on the best way of devolving the administration of public education. The first moves towards devolution, influenced by American precedents, took place in 1952 when autonomous education systems were created in cities and country districts. This system was suspended following the military coup of May 1961 and the duties of boards of education were taken over by the Ministry of Education, acting through district superintendents of education.

During the period of the military presidencies, the various functions of local administrations, among them the administration of local education systems were unified. This created tensions between those who supported and those who opposed including education among a broader range of local community responsibilities. Those tensions continue. Recent changes have produced arrangements under which boards of education have been established in some cities and provinces, and have responsibilities that have been delegated to them by the relevant municipal or provincial government. Members of boards of education are appointed through a process of indirect nomination and appointment. At least half of the members of each board must have at least 10 years experience in the education sector. These boards are deliberative bodies. They appoint the superintendent of education who is responsible for all executive decisions. The municipal and provincial governments, through their elected representatives, enact local laws and regulations, authorise educational expenditure, including teachers salaries (KEDI, 1995, p. 10).

Until the recent changes in local government, municipal and provincial governments were themselves closely constrained in their own powers of decision. Key office holders were appointed by the central government and acted as its agents. The monies to be spent on education were ear-marked in advance by the central government. Municipal and provincial councils are now fully elective. There is an expectation, endorsed by the ERP, that they will increase their expenditure on education. There is a proposal that teachers be re-classified as local instead of national government employees.

In systems where a board of education has recommendatory responsibilities only, with the power to make the decisions resting elsewhere, tensions between the deliberative body and the decision-making body are the usual experience. The Background Report (Part One of this volume) notes a lack of co-operation between board of education and municipal/provincial councils. The Education Reform Proposals do not indicate the nature of changes it would like to see for provincial municipal councils and boards of education. It has, however, identified the improvement of local autonomy for education as an item for public hearings and these were taking place during our visit in September-October 1995.

Given the emphasis it places on institutional autonomy, parental choice, and ways of making schools more responsive to their local circumstances, the ERP focuses attention on the management of each school. At present, the reality of local school management is about as far removed from the ERP's vision of the future as could be imagined. In the longer term, the model of school management advocated by the ERP would require that parents be allowed to choose their school. School councils would determine the curriculum to be taught, appoint and dismiss teachers, control the school budget, and be accountable for the school's educational performance. The funding of schools from official sources would be differentiated according to their educational performance. None of these conditions exist at present.

Primary school entrants are assigned to a local school. Middle school students are randomly assigned by lot to a school. The system is changing for high schools but 70 per cent of students are assigned to a school by lot. Parents who want their children educated in a private school apply to exercise that right but children are assigned to private schools by lot (KEDI, 1995, pp. 3-5). Teachers are assigned to public schools by the superintendent of education and are moved to another school after a four year appointment. The school curriculum is determined by the MOE, but the latest revision allows schools a small amount of scope to select from among some course options. School budgets are determined by municipal governments following the recommendations of boards of education. There were no local school councils in 1995 but, in line with an ERP recommendation, some have been established on a trial basis in 1996.

There are complex reasons for this lack of formal enrolment by parents and other members of local communities in the running of public schools. Obviously, Korea's long history of centralised, authoritarian rule is an important factor. But there appear to be cultural factors as well. In speaking with Koreans, we got a sense that, in general, it is assumed that public and other functionaries will, once they have received a mandate to carry out a role, exercise their autonomy as they themselves judge best. A mandate, furthermore, that has been decreed by the President or by law carries great implicit authority and is to be exercised in the terms in which it has been given until the decree or the law is changed or annulled. In education and in other sectors of public life, this gives continuing legitimisation to an office-bearer's right to decide and act, and it is the obligation of other office-bearers and the citizenry to respect their right.

The exercise by teachers and educational officials, of their duly mandated authority, is apparently bolstered by another strong Korean cultural value. In the Korean cultural tradition, the teacher, with the parent and the King (President) has a paternal status that commands great respect. The status of Korean teachers may have fallen somewhat in economic terms but principals, superintendents and senior educational officials continue to command respect from parents. It has

been suggested to us that more traditional Koreans still expect a social distance to be maintained between parents and teachers. We have also been reminded that younger Koreans expect to be more participative in those aspects of their life that concern them directly, and that schooling of their children is very important in that respect. It is not for us to try to gauge the relative strength and importance of the differing attitudes that Korean parents may have. They will obviously have an important bearing on effectiveness of the changes proposed by the Commission for the management of schools.

As outlined in the ERP these changes are modest and are clearly intended as a first step toward more lay participation. The policy for assigning students to schools would be modified to allow parents to list their preferred schools before the screening lottery took place (Presidential Commission on Education Reform, 1996, p. 64). School management committees would be formed, comprising "the principal, teachers, parents, community leaders, alumni leaders, and specialists in education" (*op. cit.*, 1996, pp. 41-42). They would draw up the school charter, decide on elective courses within the curriculum, deliberate on the school budget, supervise its finances, make decisions in the out of school use of school buildings, and make regulations for school operators. On a selective basis, the ERP also proposes that school management committees have a role in the appointment of their principal and up to 20 per cent of the teachers. The appointments would still be made by the municipal or provincial office of education. But the school management committee would be actively involved at all points in the appointment process, at the end of which it would list two candidates from whom the superintendent of education would appoint one (*op. cit.*, 1996, pp. 41-44). Principals appointed in this way could be reappointed after completing their initial term. The proposal is now being acted upon on a trial basis in schools throughout the country.

These changes, if they become national policy, will not create the market conditions that the ERP envisions for the new Korean school system. Transformations of the kind proposed cannot happen overnight. Even in education systems with a greater tradition of local participation in the management of schools, the effective devolution of responsibility has proved to be complex, time-consuming, and by no means straight-forward. New Zealand, England and Wales are current examples of education systems in the process of radical transformation along policy lines similar to those advocated by the ERP. Radical proposals for change inevitably arouse opposition and, in democratic communities, generate continuing political activity directed with great energy by interest groups that variously favour the reforms as they stand, want them to be even more radical, want to see them modified, or want to see them scrapped.

Leaving aside the politics of educational reform, it simply takes time and a great deal of well directed effort to change the inner life of schools and their

relationship with controlling authorities, parents and their local community. Schools are not manufactured products and their educational effectiveness cannot be measured in terms of market share and the financial return to shareholders. Their effective management calls for well found professional knowledge supported by at least an adequate provision of material conditions and supporting services. No one would argue against the desirability of greater parent involvement in the life of schools, including their management. Parents and teachers in school communities that take their involvement seriously know, however, that new relationships require new learning on everyone's part. This takes time, and the results and emerging issues cannot always be foreseen. The lesson to be learnt from the experience of other countries is that a great deal of continuing effort must be given to leadership training at local levels to prepare principals, teachers, parents and community leaders to handle new roles and responsibilities effectively. While there may be teachers with some reservations about some aspects of a reform programme, it is nonetheless vital that their professionalism be respected and that they play an active part in shaping the policies they will be required to put into practice.

## **THE PROFESSIONALISM OF TEACHERS**

The ERP acknowledges that "teachers, as the agents for educational reforms, participate in the innovative undertakings at the grassroots level. They also serve to anticipate and open the way to the future for the next generation" (Presidential Commission on Education Reform, 1996, p. 25). An important aim of the reforms will thus be to provide opportunities for teachers to establish a sound basis for their professional activities and to be able to build on it during their careers.

The schools in a region should be given the discretion to develop teaching programmes that are specific to regional needs. Schools should also be diversified functionally according to their proven strengths. Parents and the general public will need to be well informed about the distinctive features of schools and how they are performing educationally. That information will be derived from regular school evaluations of educational outputs. Evaluations should be "objective and valid" and, to assist schools in reaching standards that are excellent by international comparisons, they should receive "timely financial assistance" and "supportive administration" (*op. cit.*, 1996, p. 19). The Education Reform proposes that its Curriculum Development and Assessment Centre have the responsibility for establishing the criteria for school evaluation (*op. cit.*, pp. 67-68).

Comprehensive changes along these lines will require equally comprehensive changes in teachers conditions of service, in the forms of professional support available to them, and in their collective skill in transforming their schools in the directions proposed. The Commission proposes that the traditional salary

structure of the Korean teaching profession be replaced by one based on merit and competence. Teachers' salary scales, in common with Korean pay scales in general, are based on automatic annual increases related to age. Only within the last year have the Korean Teachers Federation and the MOE negotiated pay scales that include responsibility allowances that are based on a description of the duties to be undertaken. Only a very small proportion of the salaries of some teachers will be in recognition of the performance of such duties. To observers from Western societies, where meritocratic principles are the norm, it seems clear that the Korean tradition of salary rewards reflects deeply rooted values that link advancing age with wisdom, respect and authority with financial reward. To transform the present reward structure, with the formal and informal arrangements for the internal organisation and management of schools associated with it, will call for a comprehensive reconsideration of the responsibilities to be performed in schools, their description and inter-relationships, the monetary value to be placed on them, the knowledge and experience required to fill them, and the processes of appointment by which teachers will fill them. A national policy of promotion based on merit will, however, be essential to the success of the Education Proposals for reform in the schools themselves.

To enable principals and teachers to prepare themselves for salary promotion in such a system, the continuing professional education of teachers will need to be put on an entirely new basis. In-service training programmes are at present provided to prepare Grade 2 teachers to be qualified to be promoted to Grade 1 and, later in their careers, to positions of vice principal and principal. The courses are run under the jurisdiction of superintendents of education in 14 teacher training institutes in provinces and municipalities. These programmes are criticised for their lack of relevance to the everyday concerns of practising teachers.

The Education Reform Proposals (ERP) rightly see improvement in the quality and a greater availability of continuing education to be essential to its reforming intentions. For teachers generally, it proposes the introduction of distance education programmes associated with the use of information technology. It wants closer links to be forged between colleges of education and the "educational front-line", and in-service programmes that will enable teachers to become more "self-directed" in their own learning. The ERP's principle of choice applies as well: teachers should be free to choose the training institutes with which they will enrol (Presidential Commission on Education Reform, 1996, p. 71).

The ERP emphasises the importance of having teachers as active participants in research aimed at improving teaching and learning. It proposes "research allowances" for teachers who will undertake research in school settings, and increased opportunities for overseas travel by Korean teachers and educationists.

“Research teachers” would receive favourable consideration for overseas travel (*op. cit.*, pp. 71, 78).

These proposals all imply the reconceptualisation of policies for school development and curriculum development as well as for teacher development. Linked to the Education Reform Proposals for a greater commitment to research by university and college teachers, it offers a basis for the rejuvenation of the work of teachers institutes and colleges of education in each educational district in conjunction with the superintendent's office and principals and teachers in schools. Again, the ERP's incentives, to be carried out, will require a great deal of concerted policy development at district level if its reform proposals for the schools are to flourish. OECD countries have been working this vein of educational reform for many years and have much experience that Korea will no doubt want to reflect on as it works out its own solutions.

The Education Reform Proposals (ERP) linkage of educational evaluation with salary rewards for teachers and competition between schools are much more problematic. It has yet to be demonstrated that systems of school evaluation can be devised that are objective, faithfully reflect the ERP's curricular objectives, and are sufficiently fine-tuned to discriminate between the educational performance of schools and of teachers within them.

The ERP is highly critical of the present system for the narrow conceptions that inform the work of teachers. It proposes a new profile of educated persons that places great weight on the cultivation of human character, with “co-operative persons with a warm and receptive heart, high moral sensitivity, strong sense of community and a plan of action based on the strong belief that man can only find the true meaning of life by maintaining a good relationship with others and the environment” (Presidential Commission on Education Reform, 1996, p. 17). While these are important qualities, they can be difficult to reduce to numerical measures and comparisons. They are also, for that reason, difficult to include in rating inventories that include the measuring of educational performance. And since it is a fact of educational life that authoritative measuring instruments do have a profound shaping effect on the work of teachers in classrooms, there must therefore be a very real danger that the curriculum objectives of the new Korean education could be seriously distorted by the evaluation instruments used to assess the success with which schools are delivering those objectives. This is a well known problem of school evaluation and Korea will be well advised to avoid its pitfalls.

## **FREEDOM OF ASSOCIATION**

When the dynamics of any education system are analysed, the possible roles of teachers are always recognised as a critically important factors in national

quests for higher standards. The roles they can play as professionals and citizens in the public consideration of policy options are as important in their own ways as the quality of their collective professionalism in carrying out their day-to-day responsibilities as teachers, principals, and administrators. Societies that either have or are developing robust institutions of civil society are committed to giving the fullest effect to freedom of association within the law for all citizens who wish to meet, organise, and make common cause on matters they consider important.

During our visit we met the President of the Korean Federation of Teachers Associations, who briefed us on aspects of the ERP of particular importance to its members. We were not, however, able to assess the extent to which the Federation, as the only recognised teachers association in Korea, represents the full range of opinions and aspirations of Korean teachers. There is also a Korean Teachers Union, but it is not recognised by the MOE. We understand that in earlier years teachers who belonged to this union were dismissed, though most were later re-engaged. We think that the Korean government should reconsider its stance on the recognition of teachers organisations: recognition should be accorded any properly constituted, law-abiding association of teachers that has the confidence of its members. In our view, an educational reform dedicated to participation, choice, and competition in the pursuit of excellence should also express those values in policies for the teaching profession by acknowledging the internationally recognised right of freedom of association within the law. The Presidential Commission on Industrial Relations is, we understand, considering the issue.

## **EVALUATION OF PRIMARY AND SECONDARY SCHOOLS**

Under the Education Reform Proposals, primary and secondary schools would seek excellence of education based on autonomy and competition. Schools would be subjected to “external evaluation (...) on a regular basis to invoke competition” among them. Government support for schools will depend on the results of school evaluations, with the aim of encouraging schools to make sustained efforts to improve the quality of education (Presidential Commission on Education Reform, 1996, p. 63). The National Board of Education Evaluation, an agency of the central government, was established in 1985 with national responsibilities for the assessment of student achievements, for educational evaluation in schools, and for the development and administration of the scholastic ability test taken by students in the last year of high school. It is essentially an educational testing agency.

In terms of a reforming strategy, the Education Reform Proposals raise some important issues. The first is whether, in a system that is setting out to reduce the regulatory powers of agencies of central government, a national agency should

continue to exert what would obviously be a very strong central influence on the day-to-day work of schools throughout the country. The proposed link between evaluation and funding would ensure that that would be so. And because the evaluating body would be a national agency, whose policies would necessarily apply even-handedly throughout the country, pressures towards national uniformity would be unavoidable. We think it would be preferable to distinguish between the criteria that are to be the focus of school evaluations and the means by which the quality of the work of individual schools is to be assured. The setting of the criteria, and their regular review, is properly a national responsibility to be carried out by the MOE or under its jurisdiction in consultation with stakeholder interests. The regular reporting to the National Assembly and the general public on educational standards is also an MOE responsibility. But we think that the actual work of evaluating the performances of schools should be devolved upon agencies within the school system itself.

In the short term, while the school system is being reorganised at provincial/municipal and at local level, devolution would raise its own problems. The district offices of education are extensions of the MOE, so it might not assist the ERP's intentions to delegate the responsibility to them alone. But the district offices exist, they have a knowledge of education in their districts, they have their own administrative capacity, and they are one of the professional bases for the creation of a new system at district level. It would be possible to create in each education district a legal entity with responsibilities for applying the national evaluation criteria to the schools within the district, devising a district policy for school evaluations, managing these evaluations, reporting on them to schools, the MOE and the public, and making recommendations to the superintendent of education on funding matters arising from the school evaluations. A managing board comprising educationists, school principals and teachers, people from the world of work, and people representing the interest of the municipal authority, school management committees, and private schools, and the superintendent's office, would be sufficiently broad to ensure that public as well as professional interests were represented.

We have another reason, no less important, for proposing that the actual work of evaluating schools be carried out under district direction, drawing primarily on expertise from within each district. It is expressed in the notion of ownership. When the evaluations are completed and the results are declared, the question will be: Who "owns" the information and what will they do with it? As presented in the Education Reform Proposals, the MOE would own the information and, in the interests of financial efficiency, it would use it to reward these schools financially and, by implication, punish others. That would have the effect of telling schools where they stood in a league table but not necessarily what they should do to improve their performance and how they should do it.

When one considers each school as a functioning community – apart from how it compares with other schools – the key questions are how might it improve its performance, how it should go about it, what sort of assistance will it need, and where might it find it? If such information is to arise from an external school evaluation, the evaluation itself must be conceived and conducted so that it is capable of producing a local outcome. It must also be recognised as valid and relevant by those to whom it is addressed so that they will themselves want to own it. In terms, then, of a strategy for improving educational standards, school evaluation, though a distinct function, should be conceived in conjunction with school and district policies for the professional development of teachers and the management of learners in schools and classrooms. In our view, these considerations make a compelling case for administering school evaluations at district level, grounding them in self-evolution processes initiated by each school, placing the emphasis on information that will assist principals and teachers to improve their performance, and having networks of professional assistance available to help them to do so. Within OECD countries there is a lively interest in school evaluation in the broader context of school improvement, and different countries are following different paths. There is debate about the merits of various approaches, and there is also debate about how information from school evaluations should be used for funding purposes. Korean policies as they develop, will add the experience of one more country to that international discussion.

Even if suitable evaluation tools can be devised, major questions will arise about how their results should be interpreted. To what extent should the results for a school be attributed to the professional expertise of its teachers, as opposed to the educational background of parents, the educational richness of their children's lives outside the school, and the abundance or paucity of the resources the school has to support the work of teachers? Raw scores derived from tests of the educational performances of schools are seldom to be taken at face value. Recent research in England, for example, which adjusted raw scores for schools by taking account of the socio-economic status of each school's catchment area, produced significant changes in the rankings of schools. In terms of "gain scores" – that is, increases in the performance of individual students over a given period – some schools from lower socio-economic districts were adding more "educational value" to their students than other, more highly ranked schools that drew their students from high socio-economic districts. Any scheme of rewards for teachers or of differentiated funding of schools on the basis of "objective" evaluations would obviously have to take full account of these factors.

Another factor will influence evaluations of school performances, and to a greater degree than in any other OECD country except Japan. The very high degree of private tutoring of students must be a significant educational variable

in its own right. Because some parents are able to hire tutors and others are not, and because some children will have more tutoring in more subjects and for more years of their lives than others, the impact upon students learning as measured in tests of evaluation of school performance will be highly differentiated. This must raise large questions about how much the results for any school, even when adjusted for broad socio-economic factors, are to be attributed to the school and how much to the educational influence of parents in the background.

All this suggests that the notion of objective forms of external evaluation (in the sense of valid results that are not themselves open to justifiable argument) is one that requires very close critical scrutiny. Without question, evaluation must be an essential component of all good teaching and of all education systems that are committed to the multiplication of excellent educational performance. The issues should be taken up by practising teachers and educational specialists who are knowledgeable about school life and how to improve school performance. Proposals for action should involve the teachers themselves, in development proposals in their own schools aimed at improved educational standards. In other words, practical action that will result in better evaluations should be considered with other actions that teachers must take to improve the effectiveness of their teaching and that of students' learning.

The Education Reform proposes a way by which instruments for the evaluation of school performance can be developed but it does not say how, in its view, a system of educational evaluation should be undertaken. The actual business of evaluating the performance of schools is very labour-intensive and requires high levels of professional expertise. In virtually all education systems including Korea's, it has traditionally been undertaken by inspectors of schools, whether appointed by a national or a district authority. In the past, too, the emphasis was primarily on quality control: inspectors were the guardians of standards which, through inspection visits and reports, they imparted to schools. In the world of today, where professional responsibility is seen to inhere in principals and teachers and where controlling authorities want to know that the right conditions are being created in schools so that the quality of education can be assured, different strategies are being used. There is much debate in OECD countries about the relative merits of external assessment and self-assessment of school performance, and there is much variation in national policies. The central point of the discussion is that, however it is done, processes of evaluation should assist and encourage creative responses from the principals and teachers whose work is being evaluated. We would put our faith in an approach which, in line with the Education Reform's emphases on innovation at the grassroots and its proposal for teachers to be much more actively engaged in research in classroom issues, started with the experience, perceptions and expectations of practising teachers.

The experience of the Korean Council for University is well worth considering for insights into the way that viable processes of institutional evaluation can be developed. There are important differences between the universities and the schools, including the fact that KCUE began as a voluntary activity but the schools, under the Education Reform Proposals, would be required to be reviewed through external evaluation. The feature of KCUE, however, that legitimates it in the eyes of university administrators and teachers is that it is their own agency. Whatever form a national policy for school evaluation takes, it will be essential that leading members of the teaching profession in each municipality or province play active roles in the policy thinking that will shape its operational structures and the objectives to be achieved, and in the implementation of those policies. The policy guidelines should be national but all other initiatives, in our view, should be taken as an integral part of municipal and provincial policies for the improvement of educational performance.

## PUBLIC AND PRIVATE COSTS

We know of no other industrial country where parents and private sector educational institutions bear so high a percentage of the costs of education. The report by KEDI (1995, Table 12 and Table 5.8) explains why, in a country devastated by war, private schools and tertiary institutions became so important as providers of formal education. Forty years later, as the Table 1 shows, private institutions still have the bulk of enrolments at all levels apart from primary and middle schools.

Enrolments in junior vocational colleges have, from their inception, been predominantly in the private sector and, in 1993, 95.2 per cent of enrolments were in private junior colleges. Since 1985, furthermore, the great increases in enrolments in public universities have been for students enrolled for off-campus programmes of distance education.

Table 1. **Share of enrolments in private institutions**  
(percentage)

|                                     | 1962 | 1992  |
|-------------------------------------|------|-------|
| Middle schools                      | 40.3 | 26.5  |
| Academic high schools               | 49.7 | 63.0  |
| Vocational high schools             | 29.4 | 60.3  |
| Four-year universities and colleges | 70.6 | 66.0* |

\* 1993.

Source: KEDI (1995), Table 12 and Table 5.8.

Beyond the primary level, all Korean students pay tuition fees. Because of the paucity of public funding for private schools, tuition fees are a very high percentage of private school budgets. In 1995, private schools received 47 per cent of their funds from tuition fees, 48.5 per cent from government funds and 2.3 per cent from contributions from their owners (KEDI, 1995, p. 30). All Korean educational institutions have very high student-teacher ratios and scant budgets for equipment and support services. Private schools are more hard pressed because higher proportions of their budgets must be spent on teachers' salaries. In 1993, 93.3 per cent of private middle school and 92.2 per cent of private high school budgets were spent on staff salaries compared with 78.8 per cent and 74.2 per cent in public middle and high schools (*op. cit.*, p. 24).

Financial penury for private institutions is not, however, associated with freedom from the tight regulation that has been a feature of the administration of public schools. In line with its commitment to choice, the Education Reform proposes a very considerable freeing up of the conditions under which private schools, university, and other tertiary institutions would operate. The Private School Law would be revised to provide the legal framework for that to happen. Government financial and administrative support for private schools would increase. A fund would be created to fund improvements to private school accommodation. Private schools that set up their own school management committees, thereby aligning themselves with public schools in their internal management, would be allowed to receive financial contributions from the private sector. There would be provision for tax relief for contributions to private schools. For the school system as a whole, there would be an increase in the proportion of public secondary schools and an increase in private primary schools .

Also proposed is a new institution, the self funded private high school. Such schools would not be set up until after 1998, when the new university entrance arrangements and the proposed diversification of high school programmes were in place. They would be open to application from all middle school leavers in a province or municipal system and are clearly intended to select students with high academic potential. Selection would be by lottery.

One of the intentions of the reform proposals is to get provincial and municipal authorities to increase their financial contribution to education in their jurisdictions. In 1995, the average contribution of these authorities was 9.5 per cent of the budgets of local education systems. Dues collected from parents contributed 7.4 per cent of those budgets (Ministry of Education/KEDI, 1996, p. 15). A bigger contribution from provincial/municipal authorities would no doubt benefit public schools more than private schools. But in a new system where schools were expected to be more competitive with each other, it would add to the financial resources available for educational improvement.

The over-riding aim is to increase public funding and relieve parents of their extremely high financial burden for enrolment fees and the costs of private tuition, regardless of whether their young are enrolled in private or public schools. A recent study by KEDI shows how very considerable that financial burden is. In 1994, direct expenditure on education from all the sources included in the study amounted to 11.8 per cent of GNP. Public education accounted for 5.75 per cent of this expenditure, of which the public contribution was 3.72 per cent and the private sector cost was 2.03 per cent of GNP. Private spending amounted to 6.02 per cent of GNP. Private expenditure was defined as “all kinds of expenditure paid by parents for their children’s education”. The costs of private tutoring and supplementary materials associated with preparation for the university entrance examination amounted to 2.7 per cent of GNP and 45 per cent of all private expenditure (KEDI, 1995, pp. 3-4).

These statistics starkly demonstrate why the university entrance examination and all that entails in terms of career opportunities is so important to Korean citizens and why its reform is so necessary. Considered as a whole, however, we are not persuaded that the reform proposals would greatly reduce the “examination frenzy” in Korea. For one thing, the ERP would prevent private universities from administering entrance examinations that would exacerbate demand for private tutoring. A likely result would be that these universities will rely more heavily on high schools to select the most promising students. Numerous private companies give test-taking courses for high school students, and the students’ scores on practice tests are made known for individual high schools. Private universities, therefore, can easily identify high schools where average scores on these practice tests are high, and they can give preference to applicants from these high schools. To the extent that this occurs, it will intensify competition to enter these high schools – which, under the ERP, will themselves have more control over their admission policies. The end result could well be intensification of test-taking pressure and an increase in the demand for tutoring.

Some of the proposed reforms would certainly reduce current pressures. Allowing students to apply for more than one university and rationalising interview timetables would be an important step in the right direction. The introduction of part-time enrolment in four year universities, if it increased the numbers admitted, could increase opportunity for university study for students who might not have been able to face the costs of full-time study. The proposals for new kinds of university institutions and the recognition, by means of the credit-bank proposals, of degree-level programmes taught in enterprise training schemes, would also increase opportunities for people to attain degree status. But, at least in the short run, the students who end up pursuing study programmes that are alternatives to full-time study in four year universities and colleges will, as high

school students, still be competing for admission to four year university institutions.

The composition of the undergraduate populations, as Table 2 shows, is such that continuing competition for admission to the “best” programmes will continue.

Some clear trends are shown in these tables. The percentage of undergraduate students enrolled in four-year national and public universities is falling. So is the percentage of students enrolled in full-time four-year undergraduate programmes, whether these are provided in national/public or private universities. These are the institutions that Koreans think of as providing “real” university education. From 77.8 per cent of all students in two and four year tertiary institutions in 1985, that percentage has fallen to 69.9 per cent in 1985, 66.7 per cent in 1990, and 56.5 per cent in 1993. It is also clear that that decline is related much more to the expansion of open university degree programmes than it is to enrolments in junior vocational colleges. The pressures on enrolments in the tertiary sector are thus focused strongly on four-year undergraduate degree programmes or their open university equivalent.

The Education Reform Proposals for “new” university institutions can be expected to meet some of this demand for programmes that lead to degrees. But because of the status and prestige of the conventional four-year, full-time university programmes and their comparatively small share of tertiary student enrolments, it seems likely that the fierce competition for places in them will continue, with all the attendant back-wash effects on the school system. Nor, for demographic reasons, will that competition lessen in the immediate future. The total number of final year high school students will be only 3 per cent smaller in the year 2000 than it was in 1995. By 2005, however, it is estimated to be 15 per cent smaller than the number for 2000, which implies a considerable reduction in competition for conventional university places. But 2005 is nearly a decade ahead.

Table 2. **Undergraduate and other enrolments in Korean tertiary institutions, 1980-93**

|                               | 1980    | 1985      | 1990      | 1993      |
|-------------------------------|---------|-----------|-----------|-----------|
| <b>Numbers</b>                | 647 505 | 1 451 297 | 1 691 429 | 2 099 735 |
| <b>Percentages</b>            |         |           |           |           |
| Four-year national and public | 20.2    | 18.9      | 16.3      | 14.2      |
| Four-year private             | 47.6    | 51.0      | 50.4      | 42.3      |
| Open universities             | 5.2     | 12.5      | 12.5      | 20.6      |
| Junior vocational colleges    | 26.9    | 17.5      | 20.8      | 22.9      |

Source: KEDI (1995), Table 12.

## PARENTAL CHOICE AND PUBLIC GOOD

The intention to diversify the teaching programmes of high schools and to increase competition could be expected to increase parental determination to have their young enrolled in the “best” schools. To the extent that enrolments continued to be made by lottery after parents had listed the schools of their preference in a screening area, such tendencies could be moderated. But to the extent that screening areas were based on distinctly different socio-economic residential district, policies of diversification and competition would enable parents with the financial wherewithal to change their place of residence to ensure enrolment within screening areas where the high schools were well regarded. We understand that that is already a fact of Korean socio-economic life.

We have formed two very clear general impressions about Koreans. First, as emphasised in the ERP’s report, in the Background Report (see Part One of this volume), and in other books and papers we have read, Koreans place tremendous importance on education and parents will do everything in their power to ensure that their children get the best education they can obtain. Second, our conversations with Koreans both in Korea and abroad leave us in no doubt that Koreans are extremely competitive. These two factors acting together, constitute a powerful and, it seems, a very stable Korean cultural value. The details of the education system may change but the essential issue for Korean parents will, it seems to us, remain the same.

With the number of full-time enrolments in four-year universities and colleges continuing to be limited, the pressure on students to have high school leaving credentials good enough for admission will continue. With information about the performance of universities and other tertiary institutions being made available in the interest of transparency, parents will be very conscious of the family prestige to be associated with the enrolment of their young in the “best” institutions. New reasons are likely to replace old ones as incentives for parents to hire private tutors with the aim of helping their children to be as well placed as possible. If taken up, the Education Reform Proposal for the selective admission of five year olds to primary school can also be expected to increase competitive pressures among parents of children of pre-school age (Presidential Commission on Education Reform, 1996, p. 64).

If we are correct in our surmise, we would not expect to see any reduction in the demand for private tutoring. It seems probable that it will continue to be a distinctive feature of Korean cultural life. We have not, as of yet, obtained all the necessary information regarding the relationship between private tutoring and the formal education system. The Education Reform Proposals (ERP) and the Background Report (Part One of this volume) deplore private tutoring and clearly want to see it disappear. But we have seen no analysis of how, if at all, private

tutors and private tutoring agencies relate to the work of the schools. Are there informal contacts between a student's school teachers and his or her private tutors to ensure a reasonably close correspondence between what is taught in class and what will be dealt with by a tutor? What, typically, are the teaching or tutoring methods of private tutors? To what extent are Korean parents who use private tutors getting value for money?

It may well be that, instead of assuming that changes in the school system will lead to the withering away of private tutoring, official policy should accept that it is a *de facto* feature of Korean education and take further steps to control its effects. There are two reasons for thinking along these lines. The first is that Korean parents who spend money on out of school tutoring should be assured that their money is being well spent. The closer that the teaching methods of tutors and the content of their lessons correspond to the best approved approaches for the schools, the more likely is that to be so. The second reason has to do with equity considerations. The ERP affirms the values of choice and the right of individuals to develop their abilities to the full but it also affirms that individual freedom should be tempered by institutional means to put socially and economically deprived children on a par with normal children. Korea is developing very rapidly, and one of the consequences is that the purchasing power of families is becoming widely differentiated. How big the gap is between rich and poor we cannot say but it is clear that in Korea, as in other industrialised countries, educational inequalities are closely correlated with social and economic inequalities. An education system that is committed to reducing the educational inequality that derives from socio-economic inequality should be very attentive to the consequences of a private tutoring system that is socially differentiating in its impact.

One of the expectations of greater local participation in the affairs of local schools through school management committees is an increase in the community use of school plant and equipment. Undoubtedly, there are parts of cities where the socio-economic status of parents makes it very difficult for them to meet the costs of private tutoring for their children. In such districts it could make good sense for local schools, in a working relationship with parents, to develop after-school tutoring arrangements for students. Municipal authorities, with assistance from the private sector, could ease the financial burden for parents by providing some financial assistance. Such schemes, planned to complement the work of schools could make their contribution to reducing the gap between educational opportunities that are not available to all. The Education Reform has a proposal that would enable school councils to organise after-school programmes in response to the needs of learners and to call upon and pay for the services of those who would provide them (Presidential Commission on Education Reform, 1996, p. 42) We think there is a strong case for adjusting the funding formulae for

schools serving low socio-economic communities to include an additional weighting, making it possible for school funds as well as parental contributions to be used.

Looking to the longer-term future, there is the larger socio-political issue to be considered. The Education Reform Proposals resemble closely proposals for educational reform put forth and adopted in some OECD countries in recent years. A common feature is a commitment both to educational efficiency via competition and choice and to equity and equality of opportunity. In practice, however, the drive for educational efficiency is socially differentiating in its effects and serves among other things to bring continuing public attention to the inequalities that inevitably accompany a competitive educational model. There is no reason to believe that the Korean experience would be different. Given, however, the great cultural importance that Korean families place on education, the emergence of an under class of Korean citizens, unable to pay for the kind of education that would pave the way to the good things in Korean society for their children, could create elements of social and political instability. It is essential, in our view, that the government monitors and evaluates its policies for education as they unfold, with a view to avoiding unintended public costs that might arise from policies intended to achieve greater parental choice.

## CONCLUSIONS AND RECOMMENDATIONS

When this review was being prepared, the first question to be resolved was its intended scope. OECD reviews of education now tend to focus on particular issues rather than on comprehensive surveys of national systems, so the question was which of these approaches would at present be of more use to the Korean authorities. Because of the comprehensive nature of the reforms now being initiated in Korea, it was decided that a comprehensive review would be preferable.

Not surprisingly, we have found it a daunting task but, irrespective of the usefulness of our conclusions and recommendations, we think that the decision to undertake a comprehensive review was the right one. Korea is at a cross-roads as a society. Education is a vital concern of families and the nation. The Education Reform Proposals are intended to create a new Korean education system, and they are so comprehensive in their scope that it is important that they are thought out in their entirety, so that their implications can be grasped and debated.

We are also keenly aware of the limitations of the review process. Even with the amount of documentary information, the site visits, and the excellent co-operation we received from all the Koreans with whom we had discussions, a fortnight is altogether too short for foreign reviewers to feel confident that their perceptions are in tune with the realities of Korean society and Korean education. None of us speaks nor reads Korean. Nor can we claim intimate knowledge of east-Asian culture and Korean culture in particular. Our perceptions and conclusions are very much those of alien observers. Furthermore, we have taken our Korean hosts seriously when they have told us that outsiders commonly misconstrue the inner meaning of Korean cultural attributes. We accept it as quite possible that our conclusions may say more about some of our (Western) preoccupations than about some possible implications of the reform proposals.

The document published in 1996 that has been the focus of our review – *Educational Reform; Proposals for the Establishment of a New System of Education for an Age of Globalisation and Information* – is the first of several documents that the Presidential Commission on Education will produce for public comment during the five years it will be in existence. By the time our report is available for discussion, the Presidential Commission will have published other documents, and these might

well revise and modify some of the Education Reform Proposals. But, to take a sporting analogy, spectators see a game differently from those who are playing it. We therefore hope that our analysis of the policy objectives outlined in the ERP will add a helpful international perspective to the public and professional debate that Koreans are now engaged in. Our twelve recommendations are specific inasmuch as they deal with possible implications of the ERP proposals in a Korean setting, but they are also general in the sense that they point to policy issues that all advanced national systems of education and training are now grappling with.

We preface our recommendations with a general commendation that brings together the many comments in our report endorsing aspects of the Education Reform Proposals (ERP). In our view, the ERP has got the focus right: globalisation, information technology, open education, lifelong learning, and the reconceptualisation of education and training are the central policy issues for Korea, as they now are for all nations. More than that, we think that the ERP vision is bold and comprehensive, and has set the right agenda for further Korean discussion and debate.

## **THE QUALITY OF LIFELONG LEARNING**

We strongly endorse the emphasis in the ERP on the qualitative improvement of the performance of Korean educational and training institutions in the context of lifelong learning. But qualitative improvement, as demonstrated in learning outcomes, calls for the effective orchestration of many component factors, every one of which must be effective in its own terms and in combination with the others. In terms of national planning, and stated in very broad terms, the essential component factors are:

- adequate funding;
- professional expertise of uniformly high quality;
- appropriate curricular objectives;
- the effective provision, organisation and management in education and training sites of the professional, technological and material inputs to teaching and learning;
- continuing scrutiny of the appropriateness of learning objectives and evaluation of the effectiveness of education and training institutions and agencies;
- a strong national commitment to research and development in education and training; and
- political mechanisms that make it possible for educational and training institutions to change and adapt to new demands.

It would be asking too much of the ERP to expect it to provide answers to the many questions that will be raised in the public discussion it has initiated. But, as we read it, the ERP has paid more attention to the components of quality than to how they could be expected to interact to achieve qualitative improvement in Korean education and training. We think it has highlighted the right component factors but its discussion of some is less clear-cut than we might have expected. We place the financial implications of a national commitment to education and training of higher quality and the professional education of members of the education professions in that category.

All national governments have great difficulty in committing themselves, in advance, to the allocation of a larger percentage of GDP to a given sector of government spending. In the course of our review, the Korean government committed itself to lifting its expenditure on education from all publicly funded sources to 5 per cent of GNP by 1998, and that was clearly a decision of great national importance. But will national expenditure at that higher level be enough to transform the material conditions for learning and teaching in Korean primary, middle schools and high schools? To take one example: the MOE has embarked on a building programme for reducing the size of classes in primary, lower-secondary and secondary schools, but the actual reductions likely to be achieved by 1998 appear to be rather modest in terms of the objective to be sought. Classes that are very much smaller than is currently the norm are essential to the achievement of learning outcomes that are qualitatively better than is now possible.

Changes in the conditions under which teachers work will not by themselves assure the qualitative improvements the Education Reform desires. But qualitative improvements will be impossible without them. The next step is therefore for the government through the MOE to declare targets and set the timetables that will bring about the progressive improvement in the material and professional conditions under which teachers and trainers and their students will work in the next five to ten years.

## **We recommend**

**That the Korean government through the MOE commit itself to targets and timetables for increases and improvements in school and classroom accommodation, planned improvements in teacher-pupil ratios, and the matching supply of teachers, lecturers and trainers with appropriate qualifications, expertise, and professional education.**

We are surprised that, in proposals aimed at a general qualitative improvement in education, greater prominence has not been given to the initial and in-service education of teachers and others who as teachers, tutors, and trainers will

be responsible for guiding and directing the learning of others – adults as well as children and teenagers. We assume that much more attention will be given to this quite fundamental issue as the reform process continues.

As for the reform proposals, considered as a whole, it will be important that they are made the subject of a comprehensive, integrated approach to policy development, planning, and execution. The overriding objective of achieving qualitatively better education and training for children, teenagers and adults can most effectively be achieved if all the contributors to change are properly coordinated and resourced and are working together in harmony. We have drawn particular attention to the contributions of textbooks, teaching equipment and supporting services, teacher-pupil ratios, and the professionalism of teachers. No one of these contributions will achieve the objective unless the others are also properly attended to.

### **We recommend**

**That the Korean authorities use an integrated planning approach that ensures that the various component factors of the reform strategy are sufficiently resourced in themselves and managed so that their separate contributions will interact effectively to achieve the policy objective of improving the quality of education and training at all levels.**

### **QUALITY CONTROL/QUALITY ASSURANCE**

The public roles of institutions, such as government ministries and schools, and of office-bearers, such as government officials and school principals, are shaped by history and legal authority, and legitimated through the continuing acceptance of those who are the recipients of the services they provide. In Korea, the central agencies and authority figures are legitimated by traditions of centralised government stretching back a thousand years. An essential element of that legitimacy, it seems to us, is a tradition of autonomous action by those in whom authority is confided. It also appears, that, within the structures of authority in the Korean education and training system, vertical lines of control and decision-making have become much more strongly implanted than have lateral lines of co-operation, not only within the education sector, but also between the education and training sectors, and across the responsibilities of other government agencies. The assumption seems to be that, once legally empowered, institutions and incumbents have a professional “space” which it would be improper for others to enter or comment on or criticise publicly.

Two illustrations will perhaps bear out this observation. We encountered much criticism of a general lack of articulation between the MOE, with its responsibilities for education, and the MOL and other government agencies with their

responsibilities for vocational training and industrial training in its various forms. Similar criticisms, we hasten to add, are often made of other national systems, but we have the impression that, until the present time, there has been an inertia in the Korean national agencies that implies that inter-agency co-operation is not seen as an intrinsic part of the responsibility of those responsible for each of the several government agencies. Rightly or wrongly, we have formed the impression that with regard to some of the important new initiatives proposed by the Education Reform Proposals (in information technology, multi-media, textbooks, curricula development and evaluation, for example), vertical responsibilities have been more carefully planned for than the importance of ensuring their lateral co-operative relationships.

In the new Korean education system envisaged by the ERP, everyone who exercises authority through central government agencies will have to re-examine the processes of direction and management that, historically, have been the expression of a command mentality. Instead of controlling the national system of education and training, politicians and officials at the centre will need to ensure that, within the new system, the information needed to assure them that national policy objectives are being carried out satisfactorily throughout the country is provided. We would see all education and training, whether the result of public or private initiative, being undertaken through institutions of civil society. After appropriate public consultation, the central agencies of the state would have statutory responsibilities for the determination, of national curricula standards and guidelines, professional standards, nationally recognised qualifications, and funding levels. They would determine standards of performance in relation to which educational and training agencies were to be assessed and evaluated.

In keeping with what we think is the desirable line of development in relation to the objectives outlined in the ERP report, we have noted our reservations to the brief references in the report, regarding the national initiatives it proposes in information technology, multi-media, textbooks, curriculum development, examinations and evaluation. We think it would be a mistake to create or re-endorse national institutions that would both determine national standards in their specialised fields of responsibility and also be directly responsible for implementing them through initiatives they then took on their own behalf. As we see it, the new Korean education system, if it is to flourish, will require all central educational and training agencies to operate at arms length from tertiary institutions and the education and training institutions at provincial/municipal and local level. Ideally, the central agencies should report to the government and the National Assembly on the quality of the education and training that is being provided from public money, ensure that national systems of quality assurance are in place, and require educational authorities and institutions to develop their own systems of quality appraisal and control, in order to evaluate the

effectiveness of what is happening. This information would then be transmitted to the appropriate central agencies.

### **We recommend**

**That, as a general policy, central government agencies see it as their role to determine after appropriate consultation the standards and parameters within which tertiary institutions, training institutions, provincial/municipal authorities and local schools are to carry out their responsibilities and devolve on to those institutions the duty of appraising, controlling, and reporting on the quality of education and training in the institution(s) under their control and management.**

## **THE TEACHING PROFESSION**

A sufficiently large and diverse number of teachers, well-trained, energetic and resourceful, and properly supported for the work it is required to do will be absolutely central to the success of new Korean education. On the quantitative side it will be necessary to recruit and train enough new pre-school, primary and secondary teachers and teachers of special education to match the increased numbers of classrooms (an estimated increase of more than 34 000 by 1998, information provided by the MOE) that will result from the MOE's building programme. On the qualitative side, some radical changes of policy are called for.

At the heart of all proposals for qualitative improvement is the concept of the Korean education profession. Outside of the institutions that come under the Education Act and are administered by MOE, there appears to be little in the way of professional preparation and recognition of people who work as lecturers, tutors, or trainers in vocational education programmes. Opportunity for regular in-service education for teachers in schools and lecturers in tertiary institutions is also confined to preparatory training for promotion positions.

But in Korea, as in all other advanced industrial societies, national policy must now attend to a number of related education and training professionals. Those members of teaching profession who work in primary and secondary are one component, albeit a large and necessarily important one. We do not underestimate the importance of the legitimate concerns and interest that must be attended to in working towards a broadly comprehensive policy concept of the educational and training professions. But if quality teaching and training in an open learning system – available to Koreans at any stage of their lives – is to be the prime outcome of a new Korean education system, far reaching changes are needed in the education professions.

We endorse the Education Reform Proposals that seek to change the time-honoured, age-related progression of salary and promotion to positions of responsibility. These proposals would provide opportunities for teachers to become actively engaged in educational research and development in their schools and local districts. Still to be taken up in the reform process are the local and provincial municipal mechanisms for initiating and managing pre-service and in-service education of teachers and other educational professionals. Our view is that this will require bringing together, under a common policy, responsibilities that are now controlled and managed separately by the university colleges of education, district education offices, institutes of education, and educational research interests. Furthermore, practising teachers will need to be much more actively involved in policy deliberations than they now appear to be.

The ERP also opens up discussion on whether the teaching profession should continue to be a national service, or one managed by, and answerable to, agencies of what we have referred to as civil society. We have no doubt that the aim of policy should be towards a teaching profession whose members are accountable directly to students, parents and clients of their services rather than to state agencies. There need be no conflict within a profession that has nation-wide conditions of service and is accountable to authorities that have a secure place under the Education Act but are agencies of civil society. To the extent, too, that the education professions diversify in specialised knowledge and expertise, a broader concept of the education professions would correspond with a changing professional reality. And as part of its commitment to the values and institutions of civil society, it will be necessary to reconsider teachers' rights to freedom of association within the law. The Presidential Commission on Industrial Relations is currently considering the issue of freedom of association as it affects teachers.

### **We recommend**

**That very close attention be given in the reform process to the policy issues, variously taken up in the Education Reform Proposals, that have as their central objective the development of a Korean teaching profession that is broadly conceived, has enough members to meet the increasing demand for teachers and for new categories of education and training professionals, and is managed and organised at provincial/municipal and local levels so that all educational professionals can become actively involved in educational development in their professional area.**

### **EDUCATION AND TRAINING**

We strongly endorse the Education Reform Proposals' aim of bringing educational and training functions into a proper relationship. The central place it gives to open learning and lifelong learning are essential to the achievement of that

aim. The proposals for “new” universities will provide the means by which an appropriate recognition can be given to many forms of tertiary education and training that are not at present allowed to award recognised diplomas and degrees. The credit bank proposals will also be indispensable to the success of the larger policy aim.

In the longer term, these policy initiatives might enhance the public status of university graduates in Korean society. Calculations of rates of return to different levels of educational investment show that the financial reward for university graduates remains high. This is part of the reason for the fierce competition to enter university, although it is clear that Koreans also value advanced education for non-monetary reasons as well. In the longer term, the Education Reform Proposals have the potential to broaden the meaning given to university graduates in Korean society.

In the short term, it will be very important that the salary gap be further narrowed between university graduates, and men and women with advanced qualifications in the various occupations for which new degree programmes will become available. Junior vocational colleges and other tertiary institutions that are upgraded to four-year college status as “new” universities will have a pivotal role to play. Working closely with enterprises, they will devise programmes of study and practical experience that will be relevant to the needs of the Korean economy, and will be worthy of recognition for degree purposes. Junior vocational colleges also interface with high schools in that a number of high school students in their senior year enrol in junior vocational colleges.

In the strategies proposed by the ERP, market signals are intended to play important roles in shaping and rewarding the behaviour of educational institutions and their teachers. The present, marginalised status of junior vocational colleges demonstrates that in market terms, Korean educational institutions are not able to control all the factors influencing the effectiveness of their performance. The salary rates available to the graduates of the “new” universities are arguably the crucial factor that will influence enrolment in junior vocational colleges and the success of the “new” university proposals. Unless those rates begin to equate with salary rates for graduates from other four-year degree courses, the pulling power of the “new” universities will not be strong enough to relieve the demand from high school graduates for places in conventional four-year university degree programmes.

### **We recommend**

**That the government, by setting examples, and in consultation with employers, ensure that the graduates of four-year programmes in “new” universities are properly recognised and adequately rewarded.**

In addition to these changes at the tertiary level, there must be a broadening of the high school curriculum. We endorse the view of the Education Reform Proposals that vocationally oriented study programmes in high schools should be diversified and academically upgraded while specific vocational training is moved to the tertiary level. In particular, we strongly support pilot programmes to test the feasibility of integrated high school curricula that prepare students both for careers and for a full range of tertiary education options.

### **We recommend**

**That the academic content of vocational programmes at the secondary level be upgraded so that graduates will have the necessary educational foundation to pursue studies at the tertiary level, including regular degree programmes at universities, either immediately after finishing secondary school or at some time in the future.**

The one policy initiative which, more than any other, has the potential to break down the present cleavage between study programmes that are recognised for degree purposes and those that are not, is the Education Reform's credit bank proposal.

### **We recommend**

**That, associated with the ministry with overall responsibility for Korean education and training, there be a statutory national qualifications authority which:**

- **has a form of governance that keeps the structure of national qualifications under regular review;**
- **encompasses all recognised educational and vocational qualifications;**
- **sets out the prerequisites and the course requirements for each qualification;**
- **enables persons to progress from lower to higher types of qualification i.e. from certificate to diploma, from diploma to degree, and from graduate to post graduate qualifications;**
- **authorises procedures for the recognition of prior learning for people who lack the formal admission qualifications for particular study programmes;**
- **considers proposals for the addition of new qualifications and resolves disputes about the comparative recognition to be given to particular qualifications in the national structure.**

## INFORMATION TECHNOLOGY AND EDUCATION

The Education Reform Proposals (ERP) has, in our view, rightly emphasised the importance that information technology is having and will continue to have. We agree with its analysis of the promise it holds as an essential adjunct of any national system seeking to open up education and training opportunities through open learning systems for men and women during the course of their lives.

But we have entered two notes of caution. First, open learning has the potential to be cheaper than conventional teaching where it can be made available to large student populations, but it should not be thought of as a cheap solution. Open learning of good quality requires a carefully considered approach in which its several component parts are all properly attended to under conditions that will enable students to perform well. The ERP leaves us with the impression that the technological possibilities have received more attention than the educational requirements of good programme design and development, tutorial and other forms of student support, close supervision of students' progress, and arrangements for assessing and examining students.

Secondly, it would be a mistake to think of policies for open learning as if they should apply only to students who miss out on the opportunity to attend conventional tertiary institutions. There is as much scope for making use of open learning approaches, suitably modified, in conventional tertiary institutions as there is in programmes that have come in recent years to be called distance programmes. All undergraduates now live in a world in which open approaches to learning are becoming more widely available. As graduates pursuing their profession or vocation, they will discover that open learning systems provide them with flexible, user-friendly forms of access to advanced professional study. It would be short-sighted to think that approaches to undergraduate teaching in conventional tertiary institutions – universities in particular – should remain separate from this global development and continue unchanged.

### We recommend

**That possibilities of open learning making use, as appropriate, of information technology, be actively explored in policy development for all post-secondary institutions engaged in lifelong learning and not confined to institutions that until now have been labelled distance education institutions.**

This recommendation is directed to post-secondary institutions, but the same considerations should apply to policy developments in primary and secondary education.

## **BROADENING THE KNOWLEDGE BASE**

We strongly endorse the importance that the ERP gives to that research and development which will create knowledge, expertise and information necessary for qualitatively better education and training. We also endorse the Education Reform Proposals for a stronger research commitment by Korean universities, greater co-operation between universities and industry, and for the active involvement of practising teachers in programmes of research and development aimed at improving the quality of teaching and learning in schools. For our own part, we have emphasised the need for what we call “Koreanised knowledge”. As a necessary adjunct to improvements in teacher education programmes, we attach great importance to interdisciplinary research programmes that will explore the ongoing relationship between policy commitments in curriculum, school management and organisation, methods of teaching and learning, and professional incentives and rewards, on the one hand, and, on the other, to the cultural values and the tacit knowledge that Koreans call upon when bringing up their children. There also needs to be a considerable continuing commitment to research and development in the know-how of open learning approaches to learning. And in the development of information systems, as much consideration must be given to the questions that intended consumers will want to have answered as to the intentions of the disseminators of information.

We also offer a cautionary note. People in all countries are captivated by the possibilities for instant communication that are increasingly available. To be put to effective use for educational and training purposes, however, the prime requirement is for study programmes that are well conceived, developed, presented, and supported regardless of the means by which they are to be made available to potential learners.

### **We recommend**

**That very close attention be given to the research and development requirements of the educational and training objectives of the Education Reform Proposals and that all reform policies are suitably supported by R&D programmes.**

## **EVALUATION OF EDUCATIONAL PERFORMANCE**

The Education Reform Proposals (ERP) for the evaluation of educational performance will no doubt be a result of further public and professional discussion. Our impression, however, is that in their present form they underestimate the importance of regular interaction between practising teachers and experienced professionals who, through their knowledge and experience, are well qualified to assess the work of principals, teachers, and schools and provide advice

and guidance. The university sector, where the KCUA is now well established, is an exception to this general comment, and the participatory nature of the way the KCUA works is an example of the collaborative approach we recommend.

### **We recommend**

**That the role of evaluation and the means by which evaluations of the performance of teachers and schools are carried out be thought through in relation to policies for greater district and school decision-making, the qualitative improvement of the teaching profession, and greater co-operation at all levels between educational administrators, curriculum developers, teacher educators, serving teachers, and evaluators of the quality of students' learning.**

## **PARENTAL CHOICE AND PUBLIC GOOD**

We doubt whether the ERP will significantly reduce the demand for out of school tutoring and we think it would be more realistic to accept this in formulating policy. The ERP for out of school classes (under the auspices of school councils) would allow additional tuition to be given to students under readily controllable conditions. Changes may also be needed in the regulations under which private tutors operate to ensure the services they provide meet an approved standard, and that their contributions match schools' curriculum and teaching objectives.

There is a very large and, potentially, socially divisive equity issue involved here. Less well-off Koreans must either make sacrifices that are comparably much greater than those of well-off Koreans or leave their children at a disadvantage in the competition for admission to university and other tertiary institutions. We think that, in schools serving low socio-economic communities, serious consideration should be given to the provision of some public subsidy for tuition given in after-school classes managed by school councils.

### **We recommend**

**That in the interests of equity and social cohesion, Korean educational authorities consider subsidising the costs of academic tuition for after-school classes provided by school councils for students in low socio-economic communities.**

As part of the information to be made available to parents and the general public, it will be important that information be published on the progression rates of each annual cohort to various forms of tertiary education or to employment. It is far from clear that the shares of tertiary enrolment divided between four-year

universities, junior vocational colleges and open universities, corresponds to the annual demand for full-time places by suitably qualified high school leavers. As selected junior vocational colleges are transformed into “new” four-year universities, it will be necessary for policy purposes (as well as for public information) to know how well universities, “new” universities, two-year vocational junior colleges, open universities and other tertiary institutions are meeting policy expectations for them, while also satisfying parental and public expectations.

**We recommend**

**That, for policy purposes and to provide information for the public about the performance of tertiary sector institutions, information be made readily accessible on the progression of annual cohorts of high school leavers in respect of their subsequent enrolment in tertiary education institutions or engagement in employment.**

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