COUNTRY PERSPECTIVE: EDUCATION MODEL OF REPUBLIC OF KOREA
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Part 1

Republic of Korea in Brief
Republic of Korea in Brief

- Area: 99,720 km²
- Population: 48.75 million
- Economy
  - World 15th economy (2010)
History & Culture

• Brief History
  ▫ Three Kingdoms (BC 1C-AD7C) – Shilla (7-10C) – Koryo(10-14C) – Chosun (1392-1910) “Country of Morning Calm”, “Hermit Nation”
  ▫ Authoritarian Regime (until 1980s) – Democratization (1990s)

• Cultural Features
  ▫ Homogeneous people & language: prevalence of egalitarianism
  ▫ Confucian tradition: high regard for learning & zeal for education
  ▫ Education ideal: Benefiting All Human Beings (“Hong’ik In’gan”)
  ▫ Traditional hierarchy of professions: scholars, farmers
Economic & Social Development

Human Development Index

- 1970: 0.523
- 1998: 0.82
- 2004: 0.912
- 2011: 0.897

Life Expectancy (yrs)

- 1970: 62.6
- 1998: 72.6
- 2004: 77.3
- 2011: 80.6

Infant mortality rate (per 1,000 births)

- 1970: 43
- 1998: 5
- 2004: 5
- 2011: 4.16

Source: UNDP website

Source: Korea National Statistical Office

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Part 2

Education in Korea at a Glance
Education System

- **Formal Education**
  - Primary(6) - Middle(3) - High(3) - Universities /Colleges(4)
  - School education: 11K schools, 7.6M students, 403K teachers
  - Universities/Colleges: 405 HEIs, 3.5M students, 73K FT teachers

- **Vocational Education & Training**
  - Vocational Education: Vocational high schools – junior colleges/polytechnic colleges(2-3) and polytechnic universities(4)
  - Vocational Training: Public/private job training institutions, in-plant training institutions

- **Non-formal Education & Training**
  - Public/private job institutions; Private tutoring institutions, adult education centers; in-plant training institutions, etc
School System


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GER & Advancement Rate

Source: MOEHRD/KEDI(2007), Analysis of Educational Statistics

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Economic & Social Development

1960s-1970s
Unskilled & skilled craftsmen
Export-oriented industrialization

1980s-mid1990s
Technician & engineers
Economic reconstruction and stable growth

Mid1990-present
Knowledge workers
Reconstruction period following a knowledge-based society

Trend of employment share by occupational groups


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Skills formation by expanding educational opportunities
  - Average length of education for ages 25-64: 7 years (early 70s) → 13 years ('02)
  - Korea recognized as model of economic success achieved through human resources

No discernable difference in school access across different SES groups
Attainment of Secondary Education


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Attainment of Tertiary Ed

Quality

- K-12 education: comparable to world standard & OECD average
- Higher Education: begin to “catch-up”

### International Student Assessments

<table>
<thead>
<tr>
<th>Rank</th>
<th>Math</th>
<th>Reading</th>
<th>Science</th>
<th>Math</th>
<th>Reading</th>
<th>Science</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Chinese Taipei</td>
<td>Korea</td>
<td>Finland</td>
<td>Shanghai-China</td>
<td>Korea</td>
<td>Korea</td>
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<tr>
<td>2</td>
<td>Finland</td>
<td>Finland</td>
<td>HK-China</td>
<td>Finland</td>
<td>Shanghai-China</td>
<td>Korea</td>
</tr>
<tr>
<td>3</td>
<td>HK-China</td>
<td>HK-China</td>
<td>Canada</td>
<td>Singapore</td>
<td>Finland</td>
<td>Shanghai-China</td>
</tr>
<tr>
<td>4</td>
<td>Korea</td>
<td>Canada</td>
<td>Chinese Taipei</td>
<td>HongKong SAR</td>
<td>Finland</td>
<td>Korea</td>
</tr>
<tr>
<td>5</td>
<td>Netherlands</td>
<td>New Zealand</td>
<td>Estonia</td>
<td>Korean</td>
<td>HongKong SAR</td>
<td>Korean</td>
</tr>
<tr>
<td>6</td>
<td>Switzerland</td>
<td>Ireland</td>
<td>:</td>
<td>:</td>
<td>:</td>
<td>:</td>
</tr>
<tr>
<td>11</td>
<td>:</td>
<td>:</td>
<td>Korea</td>
<td>:</td>
<td>:</td>
<td>:</td>
</tr>
</tbody>
</table>

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Digital Reading in PISA 2009

Source: OECD (2011), PISA 2009 Results: Students On Line

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Equity in PISA performance

Percentage of students at each proficiency level on the science scale

<table>
<thead>
<tr>
<th></th>
<th>Below L1</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>7.6</td>
<td>16.8</td>
<td>24.2</td>
<td>24</td>
<td>18.3</td>
<td>7.5</td>
<td>1.5</td>
</tr>
<tr>
<td>France</td>
<td>6.6</td>
<td>14.5</td>
<td>22.8</td>
<td>27.2</td>
<td>20.9</td>
<td>7.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Finland</td>
<td>0.5</td>
<td>3.6</td>
<td>13.6</td>
<td>29.1</td>
<td>32.2</td>
<td>17</td>
<td>3.9</td>
</tr>
<tr>
<td>Korea</td>
<td>2.5</td>
<td>8.7</td>
<td>21.2</td>
<td>31.8</td>
<td>25.5</td>
<td>9.2</td>
<td>1.1</td>
</tr>
<tr>
<td>OECD Average</td>
<td>5.2</td>
<td>14.1</td>
<td>24</td>
<td>27.4</td>
<td>20.3</td>
<td>7.7</td>
<td></td>
</tr>
</tbody>
</table>

Source extracted from: OECD (2007), PISA 2006 Science Competencies for Tomorrow’s World
Class Size & Dropout Rate

Source: The Statistical Year Book of Korean Education

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Public Educational Spending Per Pupil

(Unit: 1,000 won)

Source: The Statistical Year Book of Korean Education

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Part 3

Strategies for Education Expansion
1. Linking Educational Policies to Macro-Economic Development Plans

- 5-Year Development Plan (1962-1991)
  - Government directly led planning (1962-76) : 1st-3rd Plans
  - Indicative planning (1977-91) : 4th-6th Plans
  → Top-down educational policies to support economic development plans and provide trained workforce

- 5-Year National HRD Plan (2001-2008)
  - Coordinated approach to education and training in a knowledge-based economy
  → Education policies as a key human resources development strategy
2. Sequential Expansion Approach

- Prior to 1975: 65% of education budget invested in primary education
- After 1975: investment expanded to secondary education
  - Compulsory primary education completed in 1957
- Since late 1990s: investment in quality of higher education
  - Public funding for performance-based programs in universities
3. Step-by-step Attainment of Universal Education

- Primary → Secondary → Higher Education

Source: The Statistical Year Book of Korean Education

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4. Quantitative Expansion First → Quality Improvement Later

- 1970s: Effective use of school facilities through double/multi-shifting (low-cost solution)
- 1990s-: Quality enhancement efforts (e.g. class-size reduction)

Source: The Statistical Year Book of Korean Education

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5. Sustained Public Investment in Education

Source: The Statistical Year Book of Korean Education

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6. Mobilization of Private Resources

Private School Enrollment Share (2009)

<table>
<thead>
<tr>
<th>Education Level</th>
<th>National/Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities/colleges</td>
<td>16.3%</td>
<td>83.7%</td>
</tr>
<tr>
<td>High Schools</td>
<td>54.3%</td>
<td>45.7%</td>
</tr>
<tr>
<td>Middle Schools</td>
<td>81.9%</td>
<td>18.1%</td>
</tr>
<tr>
<td>Primary Schools</td>
<td>98.7%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Source extracted from: MEST (2009), Statistical Yearbook of Education 2009
Gov’t Role for Privatization

- **Regulations**
  - Private Education Act (1963)
  - Used to regulate market entry, admission, enrollment quota, facilities, tuition, …

- **Incentives**
  - Tax exemption/break for school operation
  - Direct subsidy for private secondary school operation
  - Special loans for institutions of higher education
  - Grants and other support for private schools
7. Use of Government Research Institutes (GRIs) in Education Policy Processes

- **KDI** (1971): GOK's master think tank
- **KEDI** (1972): Conduct overall education policy studies
- **KERIS** (1996): Focus on ICT in education & e-Learning
- **KRIVET** (1997): Enhance vocational education & training
- **KICE** (1998): Conduct curriculum research & development, and educational evaluation for K-12
- **EBS** (1990): Provide educational broadcasting programs

- KDI: Korea Development Institute
- KEDI: Korea Education Development Institute
- KERIS: Korea Education & Research Information Service
- KRIVET: Korea Research Institute for Vocational Education & Training
- KICE: Korea Institute for Curriculum and Evaluation
- EBS: Education Broadcasting System
8. Notable Policy Measures

- **Supply of Teachers**
  - Operated temporary teacher training centers in 1950s and 1960s
  - Induced talents into the teaching profession with a strong teacher remuneration scheme and other incentives (e.g., exemption of military service)

- **Expansion and Improvement of School Facilities**
  - Increased school seats with a special budget earmarked for school environment improvement (7.2% in ’60s → 15.8% in ’90s, as % of total public education expenditure)
  - Refined school facilities to meet new education demands (e.g. movable partitions, internet-connected classrooms for e-Learning since 1995)
Lower-Secondary School Teachers’ Salaries

Part 4

Challenges and Reform
1. Challenges

- **Mismatch / gap between education & economy / society**
  - The ED system meets the needs of competitive economy: 35th (2010, IMD)
  - Unemployment rate of the youth (15-29yrs old) 7.2% (cf: total 3.4%)
    - Over 80% of high school graduates enter colleges upon graduation

- **Demographic Change**
  - Ageing society: share of population over 65yrs old - 11%(2010)

- **Low confidence in public education**
  - College-entrance-exam driven system
    - Extreme competition at high school to enter top 4-5 universities
    - Too much cost for private education: 18.7 billion USD (MEST, 2010)
    - Obstructing well-rounded growth of students
  - School failure, e.g. violence (bullying), drop-outs, etc.
2. Education Reform since May 31st 1995

A Systematic Approach to Restructure the Entire Education System:
Building an Open Learning Society: “Edutopia”

- Deregulation and School Governance Reform ("Hak-Un-Wi")
- Curriculum Reform (the 7th Curriculum)
- Increase in Public Financing (GNP 5%)
- Use of ICT in Schools and Classrooms
3. Deregulation/Decentralization

- **School councils: School-based management**
  - “Hak-Un”Wi” (1996): parents, teachers and regional stakeholders taking part in school operation (mandatory for all primary and secondary schools)

- **Introduction of Various Autonomous Schools**
  - Promote school choice and diversity of schooling
  - 300 autonomous schools initiative

- **More autonomy at Local office and School level**
  - Accompanied by School Information Disclosure System and Evaluation of Local offices and Schools
4. Curriculum Reform

- **Student-centered Curriculum (7th Nat’l Curriculum)**
  - Focus on fostering individual talents, aptitudes & creativity to prepare for globalization & the knowledge economy
  - Common curriculum(grades 1-10) + electives(grades 11-12)

- **Devolution of Curricular Choice**
  - Designation of “Creative management school” and financial support to promote creativity and character education (2011-)

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th>Local</th>
<th>School</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>42%</td>
<td>52%</td>
<td>6%</td>
<td>-</td>
</tr>
<tr>
<td>2002</td>
<td>26%</td>
<td>20%</td>
<td>20%</td>
<td>20-50%</td>
</tr>
</tbody>
</table>

- **Strengthen English Language Education**
  - Increase English instruction class hours (from primary level)
  - Promote instruction with native speaker
5. Regional/National Assessment

- **Regional Assessment for Diagnosis**
  - Administered by Provincial Education Offices to diagnose students’ aptitude/achievement at the beginning of the school year

- **National Assessment of Educational Achievements**
  - Administered by Ministry to assess achievement of students at 6th, 9th and 10th grades
  - Disclosure of the results to the public and link to financial support for the special needs
6. Renewal of Teaching Profession

- **Increased Participation of Teachers in Policy Process**
  - Teacher representatives in SchoolCouncils (1995)
  - Collective bargaining between government and Teachers Unions (1999-)
  - Open recruitment of principals (2007)

- **Professional Development & Accountability**
  - Introduction of a new evaluation system focusing on teaching performance (2005), 360 degree evaluation (2007)
  - Assessment & accreditation of teacher education & training institutes (2009)
7. Policies on ICT in Education

- Sequencing of a series of strategic ICT master plans (now in the 3rd stage)
  - Initial investment on infrastructure (supply-driven approach)
  - ICT literacy ED for students
  - Massive teacher training in a relatively short-term
  - Incentives for local ED authorities and schools (e.g. performance evaluation associated with funding)

- Governance and Financing
  - Creation of ICT unit in both central and local ED authorities
  - Budget support for initial investment
  - Establish KERIS as policy think tank & information clearing house

- Monitoring and Evaluation
Policies on ICT in ED and beyond

- Customized learning space open to students
  - Cyber Home Learning System (SCHL) is an on-line learning service to support students for self-study through the internet

- ICT for ED Management and Administration
  - National Education Information System: Web-base on-line system

- Implementation of SMART education
  - Response to rapid expansion of smart appliances and increase in demand for creative learning: initiatives for development of digital text book etc.
# 8. Policies on Technical & Vocational ED

## Technical Vocational ED system in response to Economic Development

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand for skilled workforce</td>
<td>Transition from agriculture to industrial economy</td>
<td>Unskilled &amp; skilled craftsmen</td>
<td>Technician &amp; engineers</td>
<td>Upgrading &amp; retaining of workers, the unemployed etc.</td>
</tr>
</tbody>
</table>
| Trend of Technical Vocational Education | Expansion of general ED | • Establishment of vocational high schools  
• Specialization of technical high school | • Expansion of junior colleges 
• Enrollment target by 1995 (vocational HS 50:general HS 50)  
• 2+1 program | • Life-long vocational education  
• Customized training  
• School-industry cooperation |
Reform in Vocational Education

- Current Vocational Education system in Korea

- Current policies at the upper-secondary level
  - Declining attractiveness of secondary VE and skill-mismatch together with youth unemployment
  - Initiatives to promote innovation in VE through “Meister Schools” and competency-based approaches for a demand oriented VE
Reform in Vocational Education

- Strengthening career preparation courses
  - Meister Higher Schools to educate master technicians (50 schools by 2012)
  - Graduates hired by excellent companies through employment MOU

Proportion of Meister high schools with employment MOU

Vocational high schools

- Field training in companies to improve practical skills

Employment rate of vocational high schools

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9. Policies on Higher Education

- Promotion of University Autonomy
  - Deregulate school admission policy
  - Increase self-autonomy through KCUE (Korean Council for University Education)

- Disclosure of Information on HE
  - School Information Disclosure Act (2007)
  - Mandatory disclosure of input, process and output indicators
    - Input measures: PT ration, unit expenditure, occupancy/enrollment rate, etc
    - Process/outcome measures: persistence/graduation rate, employment rate, customer satisfaction, etc
Funding for performance

- **1\textsuperscript{st}-phase Brain Korea 21 (1999-2005, US$ 1.4 billion)**
  - Enhanced university research capacity; induced competition
    * No of BK21 science & tech SCI-level papers: 3,765 (’98) $\rightarrow$ 7,947 (’05)

- **2\textsuperscript{nd}-phase Brain Korea 21 (2005-2012, US$ 2.3 billion)**
  - Cultivate 20,000 graduate-level best brains per year
    * 74 universities, 244 project units, 325 project teams (06, US$ 290 mil)

- **New University for Regional Innovation (2004-8, US$ 1.2 bil)**
  - Specialize local universities; skill formation for local industry
    * 109 local universities, 130 project units

Financial Incentives for Reform and Restructuring
Financial Aid for Students

- **Government-guaranteed student loan scheme (2005)**
  - Subsidized interest rates for low-income students: 0~2%

- **Establishment of Korea Student Aid Foundation (KSAF, 2009)**
  - National scholarship scale: (2007) 97.9 billion won > (2011) 521.8 Billion won

- **Introduction of income-contingent loans (2010)**

- **Scholarship for students majoring in science & technology**

Source: MEST, Korea (2011)
Part 5

Reflections
Reflections

- Education as a key source of development
- Policy interventions with commitment & investment
- Possibility of a parallel approach
  - as opposed to a sequential approach
  - potential of technology
THANK YOU!
"CHEI-ZU TIN-BAR-TE"

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