Monitoring & Evaluation System in Supporting Quality Compulsory Education in China

Delegation of P. R. China
18th April, 2007
Bali, Indonesia
The National Education System in China
## 2006 Major Data of the Education System

<table>
<thead>
<tr>
<th>Education Level</th>
<th>No. of schools</th>
<th>No. of teaching staff</th>
<th>No. of students</th>
<th>Rate of enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher ed.</td>
<td>2,311</td>
<td>1,076,000</td>
<td>25,000,000</td>
<td>22%</td>
</tr>
<tr>
<td>Senior secondary ed.</td>
<td>31,660</td>
<td>2,170,200</td>
<td>42,963,400</td>
<td>59.2%</td>
</tr>
<tr>
<td>Junior secondary ed.</td>
<td>60,900</td>
<td>3,475,000</td>
<td>59,579,500</td>
<td>97%</td>
</tr>
<tr>
<td>Primary ed.</td>
<td>341,600</td>
<td>5,587,600</td>
<td>107,115,300</td>
<td>99.3%(net)</td>
</tr>
<tr>
<td>Pre-schooling ed.</td>
<td>130,500</td>
<td>776,500</td>
<td>22,638,500</td>
<td>42.5%</td>
</tr>
</tbody>
</table>
## Average Class Size by Level of Education

[China (2004), Other Countries (2002)]

<table>
<thead>
<tr>
<th>Country</th>
<th>Primary Ed.</th>
<th>Junior Secondary Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>35.1</td>
<td>56.6</td>
</tr>
<tr>
<td>OECD Country Mean</td>
<td>21.8</td>
<td>23.7</td>
</tr>
<tr>
<td>Brazil</td>
<td>26.1</td>
<td>33.7</td>
</tr>
<tr>
<td>Egypt</td>
<td>40.9</td>
<td>43.5</td>
</tr>
<tr>
<td>India</td>
<td>40.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Jordan</td>
<td>28.5</td>
<td>30.6</td>
</tr>
<tr>
<td>Malaysia</td>
<td>32.9</td>
<td>37.1</td>
</tr>
<tr>
<td>Philippines</td>
<td>39.7</td>
<td>51.6</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>16.1</td>
<td>20.6</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>26.2</td>
<td>29.8</td>
</tr>
<tr>
<td>Thailand</td>
<td>25.1</td>
<td>36.3</td>
</tr>
</tbody>
</table>
Major Issues of Monitoring & Evaluation of Compulsory education in China

1. To ensure those who should come have actually come

2. To ensure those who come have actually stayed

3. To ensure those who stayed have actually learned well
1. To ensure those who should come have actually come

- In 1986, the National People’s Congress made the Law on Compulsory Education.
- The National Inspectorate of Education was established by the State Council to monitor the enforcement of compulsory education.
- At the end of 2000, 9-year compulsory education had basically been achieved (in the areas inhabited by 85% of population).
- At the end of 2006, 2888 counties but 92 have already achieved the goal.
Strategic Policies (1):

- In the 1980s and 90s, rural people were encouraged to contribute for the establishment of schools.
- Followed the World Bank’s Basic Education Project in China, the central government has implemented the 1st and 2nd cycles of the Project of Building Schools for Compulsory Education.
- The project of the renovation of outdated and low quality school buildings.
- Since 2004, the central government has invested 10 billion RMB to establish 7700 boarding schools in the rural areas of the western region.
2. To ensure those who come have actually stayed

- The national goal of controlling dropout rate has been set up (less than 1% for primary education and less than 3% for junior secondary education).
- In 2006, the retention rate from grade 1 to grade 5 of primary education is 98.81%.
- The retention rate from grade 1 to grade 3 of junior secondary education is 93.83%.
In some counties, the dropout rate of junior secondary education is considerably high.

Many evaluation programs have shown that poverty is one of the major obstacles for students’ going to school, in the rural areas in particular.
The children of migrant workers from rural to urban areas could have a higher dropout rate, as being reported by the media.

A research program on compulsory education for children of migrant workers, sponsored by the World Bank and MOE of China, has been carried out by several research institutions.
Strategic Policies (2-1):

- A comprehensive system of providing financial aid to students of the poor families had been implemented since 2002 (including free charge of miscellaneous fees, free textbooks and a subsidy for school meals).

- The responsibilities of urban government and public schools for providing compulsory education for children of migrant workers have been clarified.
Strategic Policies (2-2):

- The new mechanism for financing compulsory education in rural areas, includes:
  - Elimination of miscellaneous fees of rural students in the western since the spring semester of 2006, and in all the rural areas since the spring semester of 2007;
  - Provision of free textbooks, subsidy of school meals for students of the lower income families, as well as budgetary recurrent costs to schools;
  - Assurance of the income and welfare of teachers

- A cost sharing partnership between central and local governments (8:2 in the western region, and 6:4 in the middle region).

- 2006-2010, the central and local government increase 218.2 billion RMB.
3. To ensure those who stayed have actually learned well

• Improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills. (EFA quality goal)

• Compulsory education must implement quality-oriented education, and enhance quality of teaching/learning, and promote students’ all-rounded development. (Law on Compulsory Education)
• Chinese students outperformed their US counterparts in the areas of base-ten counting and place values, calculation and mental mathematics, simple and process-constrained problem solving, and flexible mathematics representation.

• But Chinese students show no advantage in graphing, understanding tables, or open-process problem solving.

---- Jian Wang & Emily Lin (2005)
Strategic Policies (3-1):

• Curriculum reform:
  - Since Sept. 2001, curriculum reform for compulsory education had been piloted in 42 local areas of 29 provinces (or municipalities)
  - In Sept. 2004, there were 2500 counties (cities or district) implementing new curriculum, benefiting 70%-80% of the new enrollment.
  - From Sept. 2005, new curriculum has been implemented for all new enrollment.
Some features of the new curricula

- Curriculum matter relates more to real life context;
- More practical hands-on experiences;
- More project-based inquiry learning;
- Leave rooms for local and school based curricula
- Offer more choices to students (optional modules)
Expected changes of teaching/learning pedagogy

- From teacher-centred approach to student-centred approach
- From the delivery of knowledge to foster the students’ creative competence
- From paying attention of the commonalities of students to paying attention of the individualities of students
- From paying great attention on “good learners” to paying great attention on students with learning difficulties
- From a rigid and examination-oriented type of assessment to a formative and “value-added” assessment system
Some evaluation has shown:

- Curriculum reform has removed fussy, difficult, deflected and obsolete contents, reduced complicated curriculum matters, added comprehensive courses such as science, art, practical activities.

- The learning styles of students have changed actively, their abilities for independent learning, participated learning and exploratory learning have been enhanced.
The Assessment of Students Using New Curriculum:

- Organizers: National Center for Curriculum and Textbook (NCCT), Beijing Normal University, Shanghai Educational Committee.
- Collaborators: Durham University
- Sampling Population: the 4th and 8th graders from Shanghai, Anhui Province, Liaoning Province
- Assessment Domains: Language, Math, Science, and background information from students and teachers
Major Findings:

- There are big differences on student achievement among different regions and different schools;
- Students’ SES has no strong effect on their achievement;
- Teacher’s educational beliefs can significantly predict students’ achievement;
- Teacher’s professional stress is related to students’ achievement significantly.
### PISA China Pilot Study

- **Organizers:** the National Educational Examination Authority (NEEA) and Beijing Normal University (BNU)

- **Collaborators:** the PISA headquarter, the ASER

- Conducted by following all the PISA 2006 procedure strictly.

- A total 5,000 15-year-old students were drawn from Beijing, Tianjin and Shandong province.
The Assessment of learner’ ability and interactive teaching

- Organizers: UNICEF Beijing Office, Department of Basic Education of MOE
- Based on national curricula standards of grade 3 and 6, SOLO taxonomy and theory of student’s cognitive development
- To analyze students’ response to test of language, math, science and life skills and to know student attainment of knowledge, competence and educational objective.
- Use casual model to analysis influence factors of students’ learning
Major Findings:

- Correlations of 3 subject competence are high;
- In most of the cases, girls do better than boys significantly;
- Student’s learning interest, time input, expectation have significant influence to student learning;
- Family SES, parents’ expectation to students, parents’ support, family study environment, family learning assurance have significant influence on student’s learning;
- School factors such as school environment, management, appropriate homework, emphasis on student development, teacher’s care, district support have significant influence on student’s learning.
Strategic Policies (3-2):

- The Plan for Modern Distance Education in Primary and Secondary Schools of the Rural Areas. From 2004 to 2007:
  - 37,000 secondary schools will be equipped with networked computer classrooms;
  - 370,000 primary schools will be installed facilities for watching satellite-transmitted educational programs;
  - 110,000 outreaching teaching sites of primary schools will be equipped with DVD players and sets of CD for instructional purposes;
Strategic Policies (3-3):

- Developing a system of on-the-job training of teachers, especially to enhance their competence of teaching;
- Elimination of tuition fees for students of teacher education programs of normal universities and students are required to sign a contract with the government to work in the rural and western regions as teachers for a certain period of time;
- Encouraging teachers in the urban areas to work in the rural areas for a certain period of time.
The Construction of National Monitoring and Evaluation System in China

- Office of the Project for Monitoring Compulsory Education (Beijing, 2002)

- National Monitoring Centre for Basic Education (Shanghai Academy of Educational Research, 2006)

- National Assessment Centre for Quality of Basic Education (Beijing Normal University, 2007)

- MOE’s Social Science Research Programs

- National Inspectorate of Education

- Ministry of Education

- National Centre for Curriculum and Textbooks (Beijing, 1990)

- Various evaluation programs in collaboration with World Bank, UNICEF, UNESCO
Challenges

- Many new frontiers in education policies, but
  - Right thing must be done rightly
  - And, the devil is in the details
- Lack of independent, systematic empiric and prospective evaluation programs
- Capacity building for experts
- Coordination and information sharing among different evaluation programs
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