THE QUALITY OF LEARNING:
TEACHING THE 3Rs
IN THE FIRST THREE GRADES
IN E-9 COUNTRIES

Bangladesh
Brazil
China
Egypt
India
Indonesia
Mexico
Nigeria
Pakistan
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When the leaders of the nine high-population countries met in December 1993, they not only committed themselves to basic education as their top priority, but also they expressed their concern about the quality of educational achievements in their respective countries. The call for quality again was discussed when the E-9 Ministers of Education met in Bali, Indonesia in 1995. By that time it had become clear that the persistent repetition and dropout rates, even in countries with high enrolment rates, were the expression of low quality primary education. Financial investments by the government and private sector were not yielding desired results: the number of young neo-illiterates was going up again. Hence, the request by the E-9 countries to share their respective experiences in the teaching of the 3Rs and thus learn from each other how to improve the quality of learning and maximise resources.

The first step in this direction was the commissioning of a series of country studies, to be followed by a meeting of experts, which took place in New Delhi, India in early 1997. The last step in the process of learning from each other is the present publication. The preparatory national studies and the final synthesis are intended to cast a fresh and critical look at ongoing practices and identify those, which are most conducive to effective learning. The principal purpose of the present publication is to document the country specific approaches in various areas of teaching the 3Rs such as curriculum, curriculum load, student-teacher ratios, language of instruction, instructional time, and learning materials. It is hoped that the hard facts, reported in a comprehensive manner, will procure the reader with a good insight into the realities of the conditions of learning and teaching in the E-9 countries. The facts are not always very encouraging and point to the need for educational decision-makers to pay utmost attention to the quality of the learning process. In fact the single most important lesson to learn from this publication is the frequently documented gap between the intended and the implemented curriculum which is shown by the author as being the principal factor contributing to low quality learning.

It has been recognised that social and political mobilisation at the grassroots level may achieve better motivation for learning, but also that it is essential to address the issue of what is actually happening in the classroom and in what ways the expectations of learners are met. In this respect, this publication may provide answers by exploring possible avenues for improved practice.

I am most thankful to the author of this study, Mary S. Thormann, and the authors of the country studies for having successfully met the principal objective of this endeavour: to focus the attention of educational decision-makers on the teaching and learning process and provide them with some tools to better understand the complexities of the issue. Thus the issue of the quality of learning will remain on the agenda of the E-9 countries.

Wolfgang Vollmann
Co-ordinator of the E-9 Initiative
UNESCO
ACKNOWLEDGMENTS

This publication is part of a process undertaken by UNESCO in consultation and collaboration with E-9 country representatives and others to respond to the challenge of how best to achieve a quality education for all. The main section of this report, "Synthesis Report of E-9 Country Studies," is based on individual studies prepared by national consultants from the E-9 countries. Their cooperation and commitment to improving the quality of lower primary education is gratefully acknowledged.

The concluding section, "Quality of Learning in E-9 Countries: Issues and Next Steps," is based on discussion among country delegates, representatives of donor agencies and other educational specialists who participated in the New Delhi E-9 meeting. The contributions are acknowledged and will provide the basis for future action.

I would like to especially acknowledge Mr. Wolfgang Vollmann, the E-9 Co-ordinator at UNESCO’s Headquarters, without whose commitment and involvement, this document would not have been written. I also would like to thank Mme. Marlene Cruz, of UNESCO, who provided me with valuable assistance during preparation of the manuscript.

I am also very grateful to Dr. Warren Mellor who at the time of the E-9 meeting was UNESCO’s Programme Specialist in Education in the New Delhi Office. He provided me an opportunity to become involved with this E-9 initiative.

A special word of thanks to Professor J.S. Rajput, Director of the National Council for Teacher Education (NCTE), host of the E-9 meeting, and to Prof. O.S. Dewal, of the NCTE, for his professional collaboration.

Finally, I would like to acknowledge the contribution of the late Dr. Thomas Eisemon from the World Bank who provided cutting edge reflection and comment at the meeting in New Delhi and who continues to improve the lives of children and families through the legacy of his writings.

Dr. Mary S. Thormann
International Consultant
A meeting of E-9 countries, the high population countries in the world, was held in New Delhi, India from February 6-8, 1997. One of the major purposes of the meeting was to share information on learning in grades 1 to 3, in particular reading, writing, and arithmetic, in the respective E-9 countries.

The focus on learning has its roots in the World Conference on Education for All (EFA) held in Jomtien, Thailand in March 1990. In the background document for the Conference, "Meeting Basic Learning Needs: A Vision for the 1990s," five components of an "expanded vision" for meeting the goal of a basic education for all were identified. One of the components was "focusing on learning."

It is well known that access to school does not ensure that children will have learned the core skills specified in the curriculum. Based on theory, research evidence, and practice, it is critical to concentrate investments on those interventions known to improve learning. These include the curriculum, learning materials, instructional time, classroom teaching, and a child’s learning capacity.

The UNESCO/UNICEF Monitoring of Learning Achievement Project (MLA), initiated in 1994 and involving 10 countries, including three E-9 countries (Brazil, China, Nigeria) is based on the premise that a systematic mechanism for monitoring student learning is essential to the improvement of the quality of basic education (grades 1-4). The assessment of the level of competence in the basic skill areas–literacy, numeracy and life skills–provides benchmarks against which progress in learning achievement can be determined as well as pointing the way for short-term and longer-term interventions. At national level, the MLA project aims to establish and sustain a monitoring culture through capacity building to improve the performance of the educational system.

The MLA project allows for the collection of information on important contextual variables such as textbook availability, sufficient instructional time, amount of homework and adequacy of instructional material and as such may be used to explain and to predict levels of competence in the various skill areas. For example, the Nigerian MLA report indicates that learning achievement was most predictable when the groups of variables–pupil, teacher, school, and parent–were taken into account.
Country-specific studies of the 3Rs syllabi, that focus on grades 1-3 only, provide the opportunity to document what is currently taking place in each of the E-9 countries and to identify the skills and knowledge needed for the 21st Century. Furthermore, the focus on the acquisition of skills and outcomes in the classroom provides a vital link to non-formal programs that can help to meet the diverse and continuing learning needs of families and communities.

The E-9 meeting in New Delhi was informed by country-specific studies that described the syllabi for the 3Rs, textbooks and other learning materials; instructional time; student-teacher ratios; teacher qualifications; supervision of teachers; methods used in teaching; and technical input from international organizations.

In addition, a report that synthesized the country studies was prepared and presented at the E-9 meeting. This report, “Synthesis Report of E-9 Country Studies,” is found in its entirety in Section II of this publication. The Synthesis Report provides comparative data on primary education for the E-9 countries. Recognizing the substantial differences among primary education systems in the respective countries, a common theme that emerged from the synthesis is that all the countries are seeking to improve the quality of their education systems.

Section III includes some common issues drawn from meeting deliberations on the quality of learning in the E-9 countries. These are presented under four broad headings—Standards and Indicators, Policy and Practice, Professionalism of Teachers, and Sustainability of Educational Reform. The issues, which are presented in summary form, provide the basis for future action by E-9 countries to study and learn from one another on how best to meet the challenge of a quality education for all.

The concluding part of Section III, Next Steps, presents actions that could be taken at national and international level to energize and deepen the process of improving the quality of learning. Similarities and differences among E-9 countries, whether in curriculum, textbook production, instructional hours by subject, or teacher training requirements provide an enormous opportunity to learn from one another. The meeting in New Delhi opened the possibility of much more intensive interchange on topics of mutual concern to the E-9 countries.
SYNTHESIS REPORT OF E-9 COUNTRY STUDIES

A. BACKGROUND

At the meeting in Bali (Indonesia) in September 1995, the E-9 countries (Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan) decided to intensify inter-country activities to learn more from each other and exchange experiences on common concerns in the field of basic education. One of the areas identified for this exchange of information was teaching and learning the three core subjects of basic education: language (reading and writing) and mathematics.

It was decided to conduct country studies to share information on acquisition of skills and knowledge in grades 1-3 in the respective E-9 countries. The country studies are the basis of this synthesis report. These studies along with the synthesis report were presented and discussed at the meeting of the E-9 countries in New Delhi, India, February 6-8, 1997. The meeting was sponsored by UNESCO and hosted by the National Council for Teacher Education (NCTE), India’s apex organisation for teacher education.

To provide the context for the synthesis report, the terms of reference for the country studies were as follows:

1. describe and analyse the syllabi used for the 3R subjects, as practised in grades 1-3;
2. briefly present the use of textbooks and other instructional materials to illustrate the respective syllabi;
3. indicate instructional time by official length of the school year (hours and days), the number of hours of teaching for the 3R subjects and for all subjects (day, week, year), length of school vacations, and, if available, actual hours of teacher time, including homework, indicated by grade;
4. discuss other intervening factors, specifically: student/teacher ratio, teacher qualifications (length of pre-service training), number of textbooks by class and subject, availability of teacher guides, learning aids (educational broadcasts), supervision of teachers, and methods used in teaching, and
5. report on useful technical inputs from international organisations to the development of the basic education syllabi.

B. LIMITATIONS

The synthesis report is based on analysis of data in the country reports from Bangladesh, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan. Material from Brazil was not available at the time of the meeting and was added subsequently. However, not all country reports addressed all the terms of reference. In some cases international data sources are used as a basis of comparison and indicated accordingly. Also, it is not known to what extent the intended curriculum is, in fact, implemented in the respective countries, nor the level of student attainment.

C. PROFILES OF THE E-9 COUNTRIES

Demographic indicators and human development indicators such as life expectancy at birth and adult literacy rates are presented in this section.

1. DEMOGRAPHIC INDICATORS

Demographic indicators for each of the nine countries (Table 1) include: total population as of 1994, estimated population by the year 2020, the population growth rate, rural-urban distribution, percent of population under the age of 15, and the infant mortality rate.
Table 1: Demographic data for the E-9 countries: Selected indicators

<table>
<thead>
<tr>
<th>Country</th>
<th>Total population 1994 (thousands)</th>
<th>Population added 1994-2020 (thousands)</th>
<th>Population growth rate (percent)</th>
<th>Population under age 15 (percent)</th>
<th>Infant mortality rate (under 1 year per 1,000 live births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>125,140</td>
<td>85,090</td>
<td>2.3</td>
<td>40.0</td>
<td>106.9</td>
</tr>
<tr>
<td>Brazil</td>
<td>158,739</td>
<td>38,727</td>
<td>1.3</td>
<td>31.8</td>
<td>59.5</td>
</tr>
<tr>
<td>China</td>
<td>1,190,431</td>
<td>234,294</td>
<td>1.1</td>
<td>26.7</td>
<td>52.1</td>
</tr>
<tr>
<td>Egypt</td>
<td>60,765</td>
<td>38,108</td>
<td>2.2</td>
<td>39.4</td>
<td>76.4</td>
</tr>
<tr>
<td>India</td>
<td>919,903</td>
<td>400,843</td>
<td>1.8</td>
<td>35.4</td>
<td>78.4</td>
</tr>
<tr>
<td>Indonesia</td>
<td>200,410</td>
<td>76,064</td>
<td>1.6</td>
<td>33.0</td>
<td>67.3</td>
</tr>
<tr>
<td>Mexico</td>
<td>92,202</td>
<td>43,894</td>
<td>1.9</td>
<td>37.3</td>
<td>27.4</td>
</tr>
<tr>
<td>Nigeria</td>
<td>98,091</td>
<td>117,802</td>
<td>3.1</td>
<td>45.0</td>
<td>75.0</td>
</tr>
<tr>
<td>Pakistan</td>
<td>128,856</td>
<td>122,474</td>
<td>2.9</td>
<td>43.9</td>
<td>101.9</td>
</tr>
</tbody>
</table>

Source: World Demographic Data (February 1994) U.S. Bureau of the Census, International Data Base

2. HUMAN DEVELOPMENT

INDICATORS

Indicators for the human development profile of the E-9 countries include life expectancy at birth, adult literacy rate, combined first, second, and third-level gross enrolment ratio, number of televisions, and the real gross domestic product per capita, reported in terms of purchasing power parity (PPP$). These are shown in Table 2.

Table 2: Human development profile: Selected indicators

<table>
<thead>
<tr>
<th>Country</th>
<th>Life expectancy at birth</th>
<th>Adult literacy rate</th>
<th>Combined first, second, and third-level GER</th>
<th>Televisions</th>
<th>Real GDP per capita (PPP$) 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>55.9</td>
<td>37.0</td>
<td>40</td>
<td>( )</td>
<td>1,290</td>
</tr>
<tr>
<td>Brazil</td>
<td>66.5</td>
<td>82.4</td>
<td>72</td>
<td>21</td>
<td>5,500</td>
</tr>
<tr>
<td>China</td>
<td>68.6</td>
<td>80.0</td>
<td>57</td>
<td>3</td>
<td>2,330</td>
</tr>
<tr>
<td>Egypt</td>
<td>63.9</td>
<td>49.8</td>
<td>69</td>
<td>12</td>
<td>3,800</td>
</tr>
<tr>
<td>India</td>
<td>60.7</td>
<td>50.6</td>
<td>55</td>
<td>4</td>
<td>1,240</td>
</tr>
<tr>
<td>Indonesia</td>
<td>63.0</td>
<td>82.9</td>
<td>61</td>
<td>6</td>
<td>3,270</td>
</tr>
<tr>
<td>Mexico</td>
<td>71.0</td>
<td>89.0</td>
<td>65</td>
<td>15</td>
<td>7,010</td>
</tr>
<tr>
<td>Nigeria</td>
<td>50.6</td>
<td>54.1</td>
<td>52</td>
<td>3</td>
<td>1,540</td>
</tr>
<tr>
<td>Pakistan</td>
<td>61.8</td>
<td>36.4</td>
<td>37</td>
<td>2</td>
<td>2,160</td>
</tr>
</tbody>
</table>

Source: UNDP Human Development Report 1996

D. COMMONALITIES AND DIFFERENCES

One area of commonality is that most of the E-9 countries have been engaged in educational reform efforts over the past few years. Other commonalities and differences, are described in terms of education structure, subjects, and their emphasis, that make up the lower primary curriculum and curriculum load. Curriculum "balance" also is discussed.

1. EDUCATION REFORM

Salient points regarding the status of education reform, based on the country studies, are presented in Table 3.
<table>
<thead>
<tr>
<th>Country</th>
<th>Primary education reform and initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>A massive curriculum reform project underway since the 1980s to implement Bangladesh’s policy of universal compulsory primary education (UCPE). Major goals of reform: (a) increase access and retention and (b) improve the overall quality of primary education.</td>
</tr>
<tr>
<td>Brazil</td>
<td>In order to balance responsibilities among the federal, state, and municipal levels, the Fund for the Development of Fundamental Education and the Improvement of the Teaching Profession has been established. The distribution of funds is being gradually introduced and is closely linked to enrolment in the schools. In addition, the Fundamental Law of Educational Policy, which provides for the establishment of a basic and common curriculum framework, has been published. Its purpose is to increase national unity and responsibility, falling within the sphere of the federal government.</td>
</tr>
<tr>
<td>China</td>
<td>Implementation started in 1993 of fifth syllabus for Chinese language and mathematics, issued by State Education Commission, to improve primary education. Lays out basic requirements for language and mathematics: tasks, scope, structure, teaching methods. China participated, as one of five pilot countries, in Joint UNESCO-UNICEF Monitoring Learning Achievement (MLA) Project to monitor quality of basic education programs.</td>
</tr>
<tr>
<td>Egypt</td>
<td>Approved Ministry of Education curricula, courses, official textbooks, reflects education policy.</td>
</tr>
<tr>
<td>India</td>
<td>Primary Education Curriculum Renewal Project completed in 1984 with UNICEF support, first major education reform initiative. National Yash Pal Committee set up in 1992 to assess curriculum load/other issues; subsequent committee report in 1993 made 21 recommendations to improve primary teaching-learning process and basis for reform efforts. India’s District Primary Education Project (DPEP) operates in 13 states with the support of the World Bank and other donors.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Goal of basic education is to develop student’s ability to develop life as an individual, as a citizen and member of society and humanity, and prepare for secondary school.</td>
</tr>
<tr>
<td>Mexico</td>
<td>Reform initiatives started in 1989 with assessment of national needs, using participatory approach (parents, teachers, others), to improve basic education, teacher education, methodologies and educational standards. Reform goals of The New Educational Model, 1991, include: (a) strengthening reading and writing and other skills; (b) using maths for daily problem solving; (c) linking scientific knowledge with health care; (d) protecting the environment; and (e) fostering greater knowledge of Mexican history and geography.</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Core national curriculum prescribed by the government. Curriculum goals introduced in 1974 for first three grades were introduced in 1992 using an integrated approach on experimental basis at federal level to (a) emphasise basic skills; (b) reduce and simplify curriculum; (c) use single textbook to integrate language, social studies, science, Islamiyat; (d) include religious matters in present curriculum; and (e) give appropriate attention to teaching of languages and mathematics. Major changes took place as a result of the Education Policy of 1992.</td>
</tr>
</tbody>
</table>

Source: Based on E-9 country studies. UNESCO, 1996
2. **Education Structure**

There is minimal variation among countries regarding educational structure. Grades 1-6 constitute the primary level in three countries: Indonesia, Mexico, and Nigeria. Grades 1-5 constitute the primary level in Bangladesh, China, Egypt, India, and Pakistan. In India and Brazil, grades 1-8 constitute elementary education. In India, lower primary includes grades 1-5.

There is between-country variation with respect to the curriculum’s differentiation by stages or levels. China’s primary schools (grades 1-5) consist of a low stage (grades 1 and 2), a medium stage (grade 3), and a high stage (grades 4 and 5). Indonesia and Mexico use a similar structure. The structure of primary education in the respective E-9 countries and stages by grade are indicated in Table 4.

<table>
<thead>
<tr>
<th>Country</th>
<th>Structure</th>
<th>Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>1-8</td>
<td>1-4; 5-6; 7-8</td>
</tr>
<tr>
<td>China</td>
<td>1-5</td>
<td>1-2; 3</td>
</tr>
<tr>
<td>Egypt</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>1-6</td>
<td>1-2; 3</td>
</tr>
<tr>
<td>Mexico</td>
<td>1-6</td>
<td>1-2; 3</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1-6</td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>1-6</td>
<td></td>
</tr>
</tbody>
</table>

Source: Based on E-9 country studies, UNESCO, 1996

3. **Curriculum: Subjects and Emphasis**

The curricula of the E-9 countries, based on the country studies, are shown in Table 5.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Bangladesh</th>
<th>Brazil</th>
<th>China</th>
<th>Egypt</th>
<th>India</th>
<th>Indonesia</th>
<th>Mexico</th>
<th>Nigeria</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>English</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maths</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Science</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X (3)</td>
<td>X (3)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>History</td>
<td></td>
<td></td>
<td>X (3)</td>
<td></td>
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<td></td>
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<tr>
<td>Geography</td>
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<td></td>
</tr>
<tr>
<td>Social studies</td>
<td></td>
<td></td>
<td>X (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EVS-integrated</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X (1,2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Arts &amp; Crafts</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor/work</td>
<td>X (3)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Society</td>
<td></td>
<td></td>
<td>X (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Ed (PE)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>PE/Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Citizenship and/or Civics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local content</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Source: Based on E-9 country reports, UNESCO, 1996

Number in parenthesis indicates grade introduced
As can be seen, language and mathematics are taught in every E-9 country beginning in grade 1. Writing is a separate subject in Egypt and Nigeria. In Brazil, writing, as well as other areas (nature, music, history and geography) are integrated in the study of language. Three countries (Brazil, Nigeria and Pakistan) teach science as a separate subject beginning in grade 1 and two countries (Indonesia and Mexico) start instruction in science at grade 3. Social studies is a separate subject in four countries (Brazil, Indonesia, Nigeria and Pakistan) beginning in grade 1, with the exception of Indonesia, which includes social studies as a separate subject in grade 3.

Arts and crafts is a separate subject in seven of the nine countries (Bangladesh, China, India, Indonesia, Mexico, Nigeria, Pakistan); in China, it is included as “fine arts.” Music, nature and moral education are taught as separate subjects only in China. Library and educational activities/practical skills are separate subjects in Egypt. In Brazil and Indonesia ‘local content’ is a separate subject. Physical education (PE) is part of the lower primary curriculum in all of the E-9 countries (referred to as ‘sports’ in China). In Indonesia, India and Pakistan the physical education subject also includes the study of health. Health is taught as a separate subject, in addition to physical education, in Nigeria.

### Table 6: Curriculum load: Number of subjects by grade

<table>
<thead>
<tr>
<th>Country</th>
<th>Grades 1 and 2</th>
<th>Grade 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>A (12)*</td>
<td>A (17)*</td>
</tr>
<tr>
<td>Brazil</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>China</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Egypt**</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>India</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Indonesia</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Mexico</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Nigeria</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Pakistan</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Based on E-9 country reports, UNESCO, 1996

* Religious education: a) Islamic education; b) Hinduism; c) Buddhism; d) Christianity

** Based on Arabic school: different curricula for language schools (official and private)

### Table 7: Student-teacher ratios by country

<table>
<thead>
<tr>
<th>Country</th>
<th>Students-teachers ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>63</td>
</tr>
<tr>
<td>Brazil</td>
<td>23</td>
</tr>
<tr>
<td>China</td>
<td>22</td>
</tr>
<tr>
<td>Egypt</td>
<td>22</td>
</tr>
<tr>
<td>India</td>
<td>48</td>
</tr>
<tr>
<td>Indonesia</td>
<td>23</td>
</tr>
<tr>
<td>Mexico</td>
<td>30</td>
</tr>
<tr>
<td>Nigeria</td>
<td>39</td>
</tr>
<tr>
<td>Pakistan</td>
<td>41</td>
</tr>
</tbody>
</table>

Source: UNDP Human Development Report, 1996

The selected country studies that include data on student-teacher ratios by location, that is urban-rural, and by gender, indicate wide disparities. In the Punjab Province in Pakistan, for example, student-teacher
ratios in girls’ primary schools vary between a high of 83:1 in Rawalpindi to a low of 16:1 in isolated rural areas. On average, in Pakistan’s rural areas, gender-specific student-teacher ratios are 35:1 for boys and 33:1 for girls. In the urban areas, the ratios are 53:1 for boys and 70:1 for girls. In Nigeria’s rural primary schools, the student-teacher ratio ranges from 30-60:1, whereas, in the urban schools the ratio ranges from 90-110:1.

2. Language of Instruction

In E-9 countries, characterised by great ethnic and cultural diversity, the language of instruction in the early grades is the mother tongue and/or regional language. Although there are exceptions, typically, instruction in the country’s national language begins in grade 4. The situation with respect to language of instruction, based on information in the country reports, is shown in Table 8.

<table>
<thead>
<tr>
<th>Country</th>
<th>Language of Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Bangla, English</td>
</tr>
<tr>
<td>Brazil</td>
<td>Portuguese. In some Amazonian indigenous communities the schools are bilingual.</td>
</tr>
<tr>
<td>China</td>
<td>Chinese</td>
</tr>
<tr>
<td>Egypt</td>
<td>Arabic</td>
</tr>
<tr>
<td>India</td>
<td>Three-language policy: Hindi or mother tongue/regional language; English or Hindi as second language; third language Hindi or English or modern Indian language</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Bahasa</td>
</tr>
<tr>
<td>Mexico</td>
<td>Spanish; 33 local languages (e.g., Nahuatl, Maya, Zapoteco, Mixtecoc, Hnahnu, Tzelta, Tzotzil); 52 dialects</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Regional languages (e.g., Hawsa, Ibo, Yoruba)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Urdu and/or Punjabi, Sindhi, Pashto, Baluchi</td>
</tr>
<tr>
<td>Source: Based on E-9 country reports, UNESCO, 1996</td>
<td></td>
</tr>
</tbody>
</table>

Language of instruction is of particular importance with regard to the availability and competence of teachers to teach the curriculum in different languages. Nigeria is an example where the lack of adequate time and resources for the study of regional languages is a serious issue, although the language policy, which started in 1985, is innovative. Regional languages are the main vehicle for transmitting knowledge in the first three grades. It was noted in the country report that there is a “glaring deficiency of instructional materials for the teaching of Nigerian languages.”

3. Instructional Time: All Subjects

The allocation of time for different subjects relates to the curriculum’s priorities and the curriculum’s “balance.” Ideally, there should be a balance between the courses required in the basic skill areas, such as language and mathematics, and non-academic subjects, such as art, music, and physical education. Curriculum balance can be assessed in terms of whether it addresses the cognitive, affective, and psychomotor needs of the primary age child.

The research is mixed on the relation between time allocated to a particular subject and achievement in that subject. According to Glatthorn (1994), the more time you allocate to a subject, the higher the achievement level. However, results from a large international study on reading achievement, based on data from 32 systems of education with reading literacy as the measure of performance, found a limited correlation between time of teaching and achievement. The time factor, per se, was not found to be a very critical factor regarding differences in reading achievement. More critical then is not the amount of time assigned to study the subject but how that time is spent (Lundberg & Linnakyla, 1993).

It is within this general framework that instructional time is considered as a contextual factor. First, the allocation of time for the curriculum overall is presented, followed by the instructional time allocated for teaching language and mathematics in the E-9 countries. Each country’s allocation of instructional time, indicated by hours per year, for implementing the overall curriculum is presented in Table 9. Because of differences in time allocations for grades 1-2 and for grade 3, those data are presented separately.
Table 9: Between-country variation in average amount of instructional time per year

<table>
<thead>
<tr>
<th>Country</th>
<th>Grades 1-2</th>
<th>Grade 3</th>
<th>Percent increase grade 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>486</td>
<td>700</td>
<td>44.0</td>
</tr>
<tr>
<td>Brazil</td>
<td>800</td>
<td>800</td>
<td>-</td>
</tr>
<tr>
<td>China</td>
<td>721.5</td>
<td>727.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Egypt**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>India</td>
<td>840 (552)**</td>
<td>840 (552)</td>
<td>0.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>660</td>
<td>960</td>
<td>45.4</td>
</tr>
<tr>
<td>Mexico</td>
<td>800</td>
<td>800</td>
<td>0.0</td>
</tr>
<tr>
<td>Nigeria</td>
<td>799.2</td>
<td>799.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Pakistan</td>
<td>910 (561.6)**</td>
<td>910 (561.6)</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: Based on E-9 country reports, UNESCO, 1996
* Only information available: 34 periods per week for Arabic schools, length of periods not known.
** Numbers in parenthesis reflect actual, versus recommended, instructional hours, based on dates in country reports.

As can be seen, the allocation of instructional time, in terms of hours per year, increases for grade 3 students, as compared to grade 1-2 students—in Bangladesh by 44% and in Indonesia by 45.4%. There is a slight increase (0.8%) in instructional time for grade 3 students in China.

4. INSTRUCTIONAL TIME:
   LANGUAGE AND MATHEMATICS

Goodlad's (1984) recommends that 30% of the instructional week should be spent on the study of language arts, including reading, and approximately 21% on mathematics. The recommendations, for grade 1-4 students in the United States, provide a point of reference for E-9 country variations. To facilitate comparison, 46-minute periods were converted to hours per week and described as "percent of total." As can be seen in Table 10 below.

Table 10: Recommended instructional time: Grades 1-4

<table>
<thead>
<tr>
<th>Subject</th>
<th>Periods per week</th>
<th>Hours per week</th>
<th>Percent of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language arts, reading</td>
<td>10</td>
<td>7.6</td>
<td>30.30</td>
</tr>
<tr>
<td>Mathematics</td>
<td>7</td>
<td>5.25</td>
<td>21.2</td>
</tr>
<tr>
<td>Social studies</td>
<td>3</td>
<td>2.25</td>
<td>9.1</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
<td>2.25</td>
<td>9.1</td>
</tr>
<tr>
<td>Health &amp; physical education</td>
<td>3</td>
<td>2.25</td>
<td>9.1</td>
</tr>
<tr>
<td>Arts</td>
<td>5</td>
<td>3.75</td>
<td>15.2</td>
</tr>
<tr>
<td>Electives</td>
<td>2</td>
<td>1.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>24.75</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Adapted from Goodlad, 1984
* 45-minute hour based on 46-minute class periods.

The estimates of percentage of instructional time allocated for language and mathematical study in the respective E-9 countries, as shown in Table 11, are limited to information available in the country studies without benefit, in some cases, of hours of instruction per week or per year. Therefore, the total periods per week are used as the basis for calculations shown in Table 11. One country study provided only the total number of hours per year without specifying the breakdown for language and mathematics. Allowing for these caveats, the allocation of instructional time provides an indication of selected E-9 country priorities for the study of the 3Rs.

Table 11: Instructional time for the 3Rs in selected E-9 countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent of time: language</th>
<th>Percent of time: mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>30.0</td>
<td>25.0</td>
</tr>
<tr>
<td>China</td>
<td>41.5 (language and writing)</td>
<td>24.7 (language)</td>
</tr>
<tr>
<td>Egypt</td>
<td>35.2 (language) 5.8 (writing)</td>
<td>17.6</td>
</tr>
<tr>
<td>India</td>
<td>30.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>30.3 (grades 1-2) 40.0 (grade 3)</td>
<td>30.3 (grades 1-2) 42.0 (grade 3)</td>
</tr>
<tr>
<td>Mexico</td>
<td>45.0 (grade 1-2) 30.0 (grade 3)</td>
<td>30.0 (grade 1-2) 25.0 (grade 3)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>25.0</td>
<td>25.0</td>
</tr>
</tbody>
</table>

Source: Based on E-9 country reports, UNESCO, 1996

As indicated in Table 11, China and Egypt allocate less time to mathematics, as compared to language, 24.77% versus 41.59% and 17.6% versus 35.2%, respectively. India’s primary curriculum, likewise, places less emphasis on mathematics than on language: 15% versus 30%. In Brazil, 30% of instructional time is allocated to language, as compared to 25% to mathematics. Indonesian grade 1-2 students spend proportionately less time studying language and mathematics (30.3% and 30.3%, respectively) than do grade 3 students (40% and 42%, respectively). Mexican grade 1-2 students spend 45% of their instructional time on language study.
Producing Textbooks:

Writing, Editing, and Printing
- A participatory process is used to write and edit the textbooks, which involves a five-member committee of national experts, made up of a curriculum specialist, a subject specialist, a classroom teacher, a teacher educator, and an illustrator. The textbooks, teachers' guides, and source books were field tested, in 100 randomly selected schools throughout the country, by subject and by grade for one year. Field testing involved 'on the spot' recording of feedback received from classroom teachers and others (Bangladesh).
- Following analysis by the National Curriculum and Textbook Board (NCTB), a consolidated report was prepared at the end of the year based on the field trial and feedback received for each subject for grades 1 to 3. Printers were selected by lottery from a pool of 400; selected printers then signed an agreement with the NCTB to ensure smooth, timely, and good quality (paper supplied by the NCTB) textbook publication. A monitoring system, involving teams of inspectors and officers, used to ensure quality. The newly developed textbooks were then introduced in the school system using a phased approach. New textbooks distributed in grade 1 in 1992 and by 1996 introduced in all five grades (Bangladesh).
- Textbooks produced in multiple languages to meet needs of respective state's diverse student population; some private sector participation, but most are produced at central level by the NCERT—National Council for Educational Research and Training (India).
- Competition used to select textbooks (Egypt).
- Local experts used to write and edit textbooks (Nigeria).

Availability
- Government and non-government textbooks can be used to implement 1994 curriculum. Funds are limited, however, and textbook supply is inadequate in some schools; some schools in remote areas have not received any textbooks. To address this, many schools use textbooks available in the market, but approved by the Directorate of Primary and Secondary Education (Indonesia).
- Virtually all primary students have access to textbooks (India).
- Inverse relationship between grade and number of textbooks (grade 1 students use seven books, grade 2 students use six books, and grade 3 students use five books).

Quality
- Quality of non-government books available in the market is poor. Government textbooks are of better quality and content is congruent with the national curriculum, but these are in short supply in some areas (Indonesia).
- Recent studies document low readability of many textbooks (vocabulary too difficult) and overall quality often poor. National committee (Yash Pal) recommended that textbook readability be improved (India).
- Textbooks used since 1993 receive high marks from students and researchers; they are suited to the psychological levels of the child and embody basic requirements of the syllabi. Criticism is that they contain too much content, placing an undue burden on the child, especially those in rural and isolated areas of the country. Some "expressions are not accurate in terms of language, illustrations, printing." More illustrations are needed to strengthen moral education (China).
- "Textbook quality is affected by using only two colours and as a result the pictures are 'dull' and do not stand out on the page. Some pictorials in mathematics texts are crowded and difficult to decipher. "Some texts reinforce socio-cultural stereotypes about the girl child and are not sufficiently gender sensitive (Nigeria).
- Traditional textbooks replaced in grade 1 by The New Primer to strengthen literacy skills. New text provides an opportunity for teacher-student interaction. Integrated textbooks for grade 1-3 are written in accordance with recommended curriculum and integrate concepts from the environment, health and population education. Vocabulary is appropriately graded and gradually supplemented. Evaluations show that children who use these texts are learning faster and better, compared to a control group. Language competence shown to improve significantly in experimental schools (Pakistan).

versus 30% on mathematics. This data provides an indication of priority given to the 3Rs, relative to other subjects, in the respective countries.

5. TEXTBOOKS AND LEARNING MATERIALS
Textbooks are often the only learning resource in grades 1-3 in the E-9 countries. Their availability, quality (including readability) and content are critical to the implementation of the intended curriculum. Other learning resources to support the language curriculum, such as classroom libraries, are either not available or not utilised. There is considerable between-country variation in the writing, editing, production and distribution of textbooks. For example, in the case of Indonesia, the government allows the private sector to produce textbooks though quality tends to be poor. Some of these variations are highlighted in the section that follows.
Country-specific data on teacher requirements and supervision where available are presented in Table 12. The definition of what constitutes a qualified and trained primary teacher, with respect to pre-service, varies according to country, as can be seen. Further delineation of those terms awaits country-specific studies regarding both pre-service and in-service training to prepare competent and motivated teachers.

### Table 12: Teacher qualifications and supervision in selected E-9 countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Requirements</th>
<th>Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Fundamental Education (8 years), plus 3 years of teacher training at a Normal School</td>
<td>evaluation conducted once a year</td>
</tr>
<tr>
<td>China</td>
<td>Specialised Normal Secondary Education</td>
<td>evaluation conducted once a year</td>
</tr>
<tr>
<td>Egypt</td>
<td>Faculties of Education: (a) Basic Education Department or (b) Education for Special Purposes. Institutes: five years after preparatory certificate</td>
<td>Supervised a minimum of three times a year; end of year evaluation includes principal of school</td>
</tr>
<tr>
<td>India</td>
<td>With some exceptions, two years pre-service is required, following ten or twelve years of general education; about 10% to 12% of primary teachers are untrained; states moving toward a two year diploma following twelve years of general schooling</td>
<td>state-specific variation</td>
</tr>
<tr>
<td>Mexico</td>
<td>After 9th grade completion, study for four years (eight semesters) or a total of thirteen years</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>Almost 32% unqualified. Grade two Teacher Certificate required; nine years of education required for entry to teacher colleges or twelve years to become a teacher; proposed changes would increase time to fifteen years</td>
<td>minimal inspection and supervision: out of 38,000 schools, only 600 visited in 1994; some rural schools not visited</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Department of Public Instruction in Punjab Province and wings of Provincial Education Departments (PEDs) in the other three provinces recruit (from grade 10), select, train, certify primary level teachers—eleven years to become a primary teacher; pre-service curriculum overloaded and too short (39 weeks—33 hrs per week—10 subjects) crisis regarding supply of teachers in general and particularly teacher quality (20% of male teachers and 26% of female teachers untrained); goal is to recruit more female teachers</td>
<td></td>
</tr>
</tbody>
</table>

Source: Based on E-9 country reports, UNESCO, 1996
The issues are illustrative only. They serve as points of departure for refinement and development of a cohesive strategy to further improve the quality of learning the 3Rs in E-9 countries.

### Table 13: Grade 1-3 curricula schema, features and salient issues

<table>
<thead>
<tr>
<th>Country</th>
<th>Type</th>
<th>Features</th>
<th>Issues</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>competency-based</td>
<td>terminal competencies; activity-based strategies; continuous assessment</td>
<td>teacher competence and motivation</td>
<td>participatory process: national training workshops (150 specialists, policy makers)</td>
</tr>
<tr>
<td>Brazil</td>
<td>integrated</td>
<td>continuous assessment used to assess progress for grades 1-4</td>
<td>teacher's attitudes, competence, and motivation</td>
<td>availability of competent teachers, school libraries, teacher support/training, infrastructure</td>
</tr>
<tr>
<td>China</td>
<td>integrated</td>
<td>curriculum lays out tasks, scope, structure, teaching methods</td>
<td>modern teaching methodologies; integration of curriculum with students' daily lives</td>
<td>fifth syllabus (1993) issued by State Education Commission</td>
</tr>
<tr>
<td>Egypt</td>
<td>competency-based</td>
<td>stress basic learning competencies: knowledge, skills, values</td>
<td>reading/writing integrated</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>competency-based</td>
<td>minimum levels of learning (MLLs); continuous assessment</td>
<td>teacher training, need minimum conditions to implement</td>
<td>states can adopt or adapt: education in India is &quot;conquered&quot;</td>
</tr>
<tr>
<td>Indonesia</td>
<td>integrated</td>
<td>different teaching methodologies used (e.g., questioning, explaining); use problem-solving in math</td>
<td>teacher skill to allocate sufficient time for language skills in Bahasa (listening, speaking, reading, writing)</td>
<td>Based on 1994 Indonesian Language Curriculum</td>
</tr>
<tr>
<td>Mexico</td>
<td>integrated</td>
<td></td>
<td>teacher flexibility in use of time</td>
<td>Priority: listening, reading, writing and speaking</td>
</tr>
<tr>
<td>Nigeria</td>
<td>modular</td>
<td>behavioural objectives by year, term, unit, weeks; heavily loaded, subject-based curriculum; lack of materials to teach regional languages/ mother tongue</td>
<td>competent teachers/ school libraries to support curriculum; motivation/training to use continuous assessment</td>
<td>Scarcity of instructional materials for teaching regional languages</td>
</tr>
<tr>
<td>Pakistan</td>
<td>integrated</td>
<td>use one text for maths and Urdu; systematic teaching for math by “effective teachers”</td>
<td>teacher competence to teach all subjects; modern teaching technologies</td>
<td>use single textbook to integrate language, social studies, science</td>
</tr>
</tbody>
</table>

Source: Based on E-9 country reports, UNESCO, 1996
H. LEARNING OUTCOMES

Raising learning achievement is an important goal in most of the countries as well as reforming the examination system, some examples follow.

In Brazil, periodic assessment of the education system on the basis of previously established standards for students at the end of 4th, 6th and 8th grades conducted by the National Institute of Studies and Research (INEP). Brazil and Mexico are part of the fifteen Latin American countries, under leadership of UNESCO Regional Office for Education in Latin American and the Caribbean/Santiago de Chile, working on educational assessment during the first four grades.

In China, there is no national system to monitor the quality of compulsory education. Current practices do not allow for the comparison of performance of students in different schools, provinces or states—only gross quantitative indicators are used which are difficult to interpret. Results of China's Monitoring of Learning Achievement (MLA) project, in collaboration with UNESCO and UNICEF, indicate that while most pupils have acquired basic proficiency in reading Chinese and knowledge of the phonetic system, only two-thirds show mastery in reading comprehension and composition. A major challenge is to improve the quality of basic education for those students—approximately 10% of primary students—who have difficulty in achieving the fundamental requirements of compulsory education, especially in poor and less developed areas. Another quality improvement issue has to do with what is tested. Tests essentially have to do with information content rather than reasoning and problem solving or the ability to use knowledge in practical life situations. The MLA project has contributed to developing basic knowledge of life skills such as health and nutrition and safety in the Chinese context.

In India, improving learning achievement has been identified as a priority issue at national level. The government's national advisory committee (Yash Pal) noted in its 1993 report that "...a lot is taught but little is learnt or understood." The World Bank's report on India: Primary Education Achievement and Challenges, noted that learning achievement in India is low and that children who reach the final year of lower primary school often have mastered less than half the curriculum (World Bank, September 1996).

In Indonesia, research conducted in 1995 by the Curriculum Development Center obtained field-based information on implementation of the Indonesian language (based on the 1994 curriculum) with the focus on teachers' understanding of the curriculum and how it was being implemented in the classroom. The results are presented in terms of the percentage of students who have started to read and write; those having difficulty in reading and writing; the number of sentences and number of words a child could produce in one lesson.

In Mexico, educational reform efforts included in the 1991 document, The New Educational Model, identified raising achievement and strengthening basic knowledge and abilities, especially reading and writing, and using mathematics for daily problem solving, as essential goals.

In Nigeria, with its present policy on education, pupils begin to study the English language from grade 1. By the beginning of grade 4, English is the language of instruction. Results of the Federal Ministry of Education's project to monitor learning achievement (MLA) of students beginning grade 4, in collaboration with UNESCO and UNICEF, indicated that the level of competency in English was very minimal and that the level of numeracy competency was generally very low. The national mean score on the literacy tests was 25.2%, with noticeable subgroup differences, favoring urban versus rural students and private versus public school students. Performance in writing was the poorest, with a mean score of 18.2%. Other studies, carried out by the University of Lagos, have shown that fifth and sixth grade students were unable to read simple stories in Yoruba, the dominant Nigerian language, or in English and were unable to perform written comprehension tasks in either language. These findings are not surprising: the roots of the problem have already been signaled in a study on symbolic violence in the field of social relations and linguistic domination referring to the ambiguous relationship between indigenous languages such as Yoruba and English, the language of the former colonial power. (cf. A. Goke-Pariola, 1993).
QUALITY OF LEARNING
IN E-9 COUNTRIES:
ISSUES AND NEXT STEPS

This section summarizes salient issues on the quality of learning, common to many of the countries, that emerged from deliberations by the E-9 delegates, representatives of UNESCO and other donor agencies, resource people and others attending the meeting in New Delhi. Some actions that can be taken at national and international level are presented as "Next Steps."

A. Common Issues

The issues are grouped according to basic themes: standards and indicators; policy and practice; professionalism of teachers; and sustainability of educational reform.

Standards and Indicators
1. consensus, at community and school level, on standards and outcomes for learning achievement;
2. indicators to measure the attainment of the standards;
3. linking the standards for teaching the 3Rs to literacy and non-formal education; and
4. quality and availability of learning materials, especially textbooks and teacher's guides.

Policy and Practice
1. need to establish and sustain a system to monitor the quality of compulsory education;
2. review of homework policy consistent with curricular goals and children's developmental needs;
3. ensure availability of textbooks, teacher guides, instructional materials;
4. equity and comprehensiveness versus streaming and selectivity;
5. special attention to learning achievement outcomes for students in rural and less developed areas;
6. chasm between actual hours of instruction versus prescribed hours of instruction;
7. scope and sequence of curriculum;
8. language of instruction during early grades;
9. problem of dropouts and related issues such as differential dropout rates for boys and girls and grade repetition;
10. adequacy of upper primary as lower primary expands;
11. access to quality education for all, including the very poor, the disabled, and girls;
12. comprehensiveness of curriculum and appropriateness to chronological age and socio-psychological stages of children in lower grades;
13. inclusion of basic life skills such as health, nutrition, and safety in the primary level curriculum;
14. ensuring closer supervision at the classroom level on the part of the head teacher;
15. linking teacher education curriculum with classroom practice;
16. guaranteeing that the official time for learning be available;
17. creating school-community linkages; and
18. preparing for the 21st century through expanded computer literacy.

Professionalism of Teachers
1. providing the opportunity for teachers to learn from each other through professional meetings and exchanges;
2. examining perceived value or status of teaching at primary level;
3. increasing teacher motivation, especially for self learning; and
4. adequacy of salary and other benefits.
Sustainability of Educational Reform

1. Training head teachers, school heads, and supervisors as instructional leaders;
2. Training school heads to be effective managers;
3. Linking teaching training with school practice;
4. Providing teacher training on-site in the community and in schools; and
5. Building capacity to monitor learning achievement.

B. Next Steps

At national level, actions could include:

1. Brief the Minister on the content of E-9 discussions and emerging issues;
2. Inform the media;
3. Convene small workshops to inform the community about E-9 recommendations, especially quality of learning issues; and
4. Design and conduct policy studies to address gaps between stated policies and implementation.

At international level, actions could include:

1. Exchange information and share experiences such as approaches to the problem of dropouts, grade repetition, teacher salary;
2. Use the Internet, where feasible, and other networking opportunities, to discuss issues of common concern;
3. Conduct joint research, especially policy studies, and disseminate findings on critical topics, such as classroom practices and quality of literacy programs;
4. Explore feasibility of international fellowships or secondments; and
5. Utilize and strengthen UNESCO Chairs to facilitate networking such as exchange of experts.
REFERENCES


This section highlights selected aspects of the presentations on teaching the 3Rs by participants attending the E-9 meeting in New Delhi. Since a Chinese delegate was not able to attend the E-9 meeting, the contribution of China is limited to its country study included in the synthesis report.

**Bangladesh**

The report was presented by Mr. Kafil Uddin Ahmed of the National Curriculum and Textbook Board (NCTB), the apex organisation for primary to pre-university levels of education in Bangladesh. Mr. Uddin Ahmed, who also directed the preparation of the country study, briefly described how the NCTB used a participatory process, drawing on the expertise of a five-member committee of national experts, to write and edit the primary level textbooks. The textbooks, teachers' guides and source books were field tested in 100 randomly selected schools for one year throughout Bangladesh, by subject and by grade. The printers were selected by lottery from a pool of 400 who had to sign an agreement with the NCTB to ensure a smooth, timely delivery of good quality textbooks. Using a phased approach, the newly developed texts were then introduced in the school system. They were first introduced in 1992 at grade 1 and by 1996 in grade 5. Some salient issues with respect to Bangladesh include:

1. a dropout rate that is "tremendous" at grades 1 and 2;
2. to address this issue, eliminating the traditional type of examination for grades 1 and 2;
3. provision of teaching aids for teachers;
4. continuous pupil assessment (CPA) that utilises observation, as well as oral and written responses; and
5. identification of teacher training as a major need in Bangladesh.

**Brazil**

The country report from Brazil for teaching the 3Rs syllabi in the first three grades was not received in time. However, the Brazilian delegate, Ms. Maria Alice Setubal, provided useful information, included in this summary report.

Brazil is the only E-9 country that does not have a prescribed, national curriculum. A guideline document is being produced. The major difficulty in implementing the curriculum at the primary level is the difference between what is "supposed to be and what is." The current emphasis is on developing textbooks for grades 1–3. Teacher salary is a major issue; financial incentives for teachers need to be addressed.

The dropout rate at the end of grade 2 is high because of repetition: "Repeaters don't stay." To address this problem an "acceleration program" was started in February 1996, for those students who had failed two or three years of school and for those who had dropped out of school. The program has 2,000 teachers and serves 50,000 students. Special textbooks are used, both for students and for teachers. The students stay in the program for one year and then progress either to grade 4 or 5, depending on grade at entry into the program. The curriculum covers grades 1–3 and emphasises reading and writing, especially related to daily life; increasing student self-esteem is a goal. The teachers are specially trained throughout the year to work with students in an interactive way that stresses problem solving. Results to date indicate that 70% of those who attend the acceleration program continue on to grade 5 in the regular school.
EGYPT

The report was delivered by Professor D. Youssri Afifi, Faculty of Education, Ain Shams University, Cairo, who also assisted in the preparation of the country report along with three other colleagues. Egypt has a prescribed national curriculum—the Minister of Education approves the curricula, courses and official textbooks. These reflect the country's policy on education. It is expected that a minimum level of knowledge, concepts, values and skills will be acquired by the child at the end of the primary education stage. The Arabic school curriculum includes 34 periods per week that extends for 31 weeks; the actual number of weeks, however, is closer to 27. Textbooks are used for language, mathematics and religion. The phonics approach is used in grade 1, supplemented by narrative in grade 2. Mathematics instruction in grade 1 stresses concepts, followed by the teaching of operations. Readiness for schooling, as reflected in kindergarten or pre-school experience, is limited to approximately 5% to 10% of the children who enter grade 1.

INDIA

The report on India, based on the country study conducted by Dr. Mary S. Thormann and Ms. Shusmita Dutt, was delivered at the meeting by Dr. Wallia, National Council of Teacher Education (NCTE), with comments on educational reform in India and other issues by Prof. J.S. Rajput, Director of the National Council for Teacher Education, and Shri Anil Bordia, Chairman of Lok Jumbish Parishad in Jaipur, India.

Shri Anil Bordia described the Lok Jumbish project, which began in 1992, based in Jaipur in the State of Rajasthan. The project is a "people's movement" (lok means "people" and jumbish means "movement") funded by the Swedish International Development Authority (SIDA), the Government of India and the Government of Rajasthan. The education system is administered at four levels: block, district, division and state. The Lok Jumbish project started in five blocks and operates in forty blocks.

Innovative features include provision of a library in the village through the National Book Trust, "trying out" textbooks, and the use of continuous assessment so that examinations are not needed. To address inequities in instructional time (i.e., intended versus implemented), the syllabus is built on a total of 220 instructional days per year. To ensure attendance throughout the year, given that seasonal migration of families is a major problem, the Lok Jumbish project has hostels where the children stay during the time their parents are away. Another feature is the use of a "micro-planning" approach; when a child in the project is absent, a visit is made to the child's home. Parents, who have to forgo money earned by their children during seasonal migration, pay for their children to attend school through bartering of primarily grain.

The project uses cluster co-ordinators who are selected by test and interview, and drawn primarily from the pool of graduates who have been unable to find a position. They are trained every six months and receive a salary lower than that earned by the teachers. The project has resulted in modest improvements (5% to 6% increases) in learning achievement, as measured by language and mathematics scores.

INDONESIA

The country report on Indonesia was delivered by Mr. Masdjudi, Curriculum Development Centre, Jakarta. The main issue identified in the country study was learning achievement. This was reiterated in the delegate's report: "...a missing link between theory and practice." Research conducted in 1996 by the Curriculum Development Centre examined teachers' understanding of the curriculum and how it was being implemented in the classroom.

One of the issues and "missing links" is the availability of textbooks. Funds are limited and textbook supply is inadequate for some schools. Some schools in remote areas have not received any textbooks. While both government and non-government textbooks can be used to implement the curriculum, the quality of the non-government textbooks is poor. Government textbooks are of better quality, but in short supply.
**MEXICO**

The report on Mexico was presented by Mr. Felix Cadena Barquin. Mexico is a multi-ethnic country with 33 local languages and 52 different dialects. A total of 15.8% of the population does not speak Spanish. Basic education consists of kindergarten and six years of elementary school, followed by three years of high school. Kindergarten is not obligatory; students entering grade 1 may have had one or two years of pre-school or, alternatively, none at all. Language instruction receives the highest priority in grades 1 and 2.

Educational reform efforts, included in the 1991 document, The New Educational Model, identified raising achievement and strengthening basic knowledge and abilities, especially reading and writing and using mathematics for daily problem solving, as essential goals. A very important issue in Mexico is teacher salary. Taking on one to three extra jobs in addition to teaching is common and may negatively affect the overall quality of education.

**NIGERIA**

The country report on Nigeria was presented by the study's author, Prof. Denis C. U. Okoro. Nigeria's educational structure includes pre-primary (ages 3-6), primary (ages 6-11), and junior secondary (ages 11-13). As of 1994, there were approximately 16 million children enrolled in 38,647 primary schools, the majority (56%) of whom are boys. Female teachers make up 46% of the primary school teachers in the country. The curriculum is subject-based and heavily loaded. Automatic progression is a policy; there is no repetition. During the first three years of formal education (grades 1-3) instruction is in the regional language or in the language of the child's immediate community.

Class size is an issue. The teacher-pupil ratio in urban centres ranges from 1:10 to 1:120. In the rural areas the ratio may be below 1:30, but in some schools, because of the unavailability of teachers or lack of classrooms, the ratio has been observed to be 1:60. It was proposed that a ratio of 1:40 should not be exceeded and that this should be national policy.

Another key issue is the availability competent teachers, as well as school libraries and textbooks sufficient to support the goals of the curriculum. Serious issues include a lack of adequate time for the study of regional languages and the teaching of mathematics because of teacher motivation and subject matter competence. The dearth of teaching materials is a major constraint to students' acquisition of the 3Rs.

**PAKISTAN**

The country report was prepared and delivered by Ms. Farhat Gul, educational consultant. All five areas in Pakistan (four provinces and the federal capital territory) follow a core national curriculum, but with adaptations based on the requirements of the respective geographic locations, especially with respect to the medium of instruction (each of the four provinces has a separate regional language). The educational structure includes five years of primary school, followed by three years of middle school, two years of secondary, and two years of higher secondary or college education. Approximately 31% of the 1995 primary school enrolment of almost 16 million students were girls. Female teachers account for only 24.5% of the 413,400 primary level teachers. Teacher-pupil ratios reflect wide disparities by location (urban vs. rural) and gender.

The official length of the school year is 212 days; however, the actual number of days of instruction time ranges from 120 to 130 days per year due to numerous official and unofficial holidays (civil and religious). A major constraint to learning achievement is teacher training: “The quality of teacher training in Pakistan has been unsatisfactory, and does not equip teachers with skills necessary to teach multi-grade classes and to use activity based approaches, both of which are necessary.” Teacher training institutions are poorly equipped to deal with the crisis of the teacher shortage and the teacher quality.
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