

## Status Report 2



## TEXTBOOKS and LEARNING MATERIALS: Today and Tomorrow\*

### Importance of Textbooks

*“In many countries of the developing world, the textbook is the major, if not the only, medium of instruction. It is the main resource for teachers, setting out the general guidelines of the syllabus in concrete form, providing a guide and foundation to the content, order, and pacing of instruction, supplying exercises and assignments for students to practice what they have learned. It is both a source of essential information and the basis for examination and appraisal.” (Montagnes, 1999, p. 1)*

- ❑ Textbooks are the most widely used educational technology because textbooks:
  - are cheap, easy to use, easily portable, and familiar;
  - can be used even in places where there is no reliable supply of electricity;
  - complement the training of under-prepared teachers who are pressed into service to meet the demand of increasing student enrollment; and
  - may be the only introduction to literacy for students in areas with no easy access to newspapers, magazines or other reading materials.
- ❑ Textbooks should be accompanied by a teacher’s guide that:
  - outlines innovative ways of teaching a particular lesson;
  - suggests class activities to reinforce the content; and
  - provides examples of exercises and assignments.
- ❑ However, teacher’s guides are seldom available in developing countries. When available, they are often de-

signed without consideration of the teacher’s level of training, or the conditions under which the guides will be used (for instance, small print is difficult to read in the poor lighting of rural communities).

### Textbook Availability

- ❑ The ideal target of one textbook per pupil may be unnecessarily expensive. A study in Philippines suggests that, when textbooks are the property of the school and are not taken home, there is only a marginal difference between ratios of 1:1 and 1:2. Some studies even consider ratios of 1:3.
- ❑ However, the number of textbooks per pupil in developing countries is generally much lower. In addition, the availability of textbooks has decreased in the past decades, due to an increase in enrollment, accompanied by no increase, or a decrease in funding for education.
- ❑ In general, textbook availability is higher in cities and towns than in rural areas. Areas that are difficult to reach had the fewest books, sometimes none. For instance, a summary of book sector studies on Angola, Kenya, Nigeria, and Tanzania recorded primary-level textbook per pupil ratios of 2:3 or better in urban areas, but 1:20 or worse elsewhere.
- ❑ Variations in availability are also related to:
  - subjects and grades (e.g. a survey of grades 1 to 5 in six South American countries found that while 70% of the students had textbooks in Spanish language, only 30% had textbooks in mathematics and

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fewer than 10% had science and social science textbooks);

- buyer's purchase power (e.g. in provinces of China, teachers in the poorest areas sometimes bought books for children from their own salaries); and
- price (in countries that import books, prices can be prohibitive).

### Quality of Textbooks

- Studies indicate that textbooks used in many countries are of less than desirable quality. Some of the problems include:
  - poor instructional design, particularly in the scope and sequence of material (e.g. books are too difficult for early grade students);
  - poor printing quality (e.g. paper is easily destroyed, pages are lost because of inadequate binding); and
  - significant errors in facts, grammar, illustrations, and a poor choice of language or script.
- In addition, these textbooks tend to:
  - reinforce gender stereotypes;
  - disregard the language spoken by the majority of the country's population (e.g. in many African countries, books are written in English, French, or Portuguese, even though in any one country fewer than 20% of the population was likely to be literate in any one of these languages); and
  - reproduce European experiences and values, irrelevant to the users' cultures (e.g., fifth grade students in Nepal learn that "Sushilla took a bus to the zoo," although 60% of children living in the mountains had never seen a wheel).
- Problems with quality are being gradually addressed. To address cultural relevance, many developing countries are using local experts to write. Some countries are also addressing gender stereotypes (e.g., in Costa Rica, new books increased the representation of women and girls in textbook illustrations, where they are shown in independent roles).

### Supplementary Materials

- Supplementary materials expand upon the information in the textbook. They may range from chalk and blackboards to educational television and interactive computerized lessons. Where textbooks are in short supply, supplementary materials are even less common.
- The most common supplementary materials are charts, chalkboards, slates, mathematics sets, and books. In some schools, the teachers must create their own instructional materials.

- Some countries are actively exploring the potential of computers for education. In the early 1990s, India, Mexico, and Tunisia were teaching computer literacy at the primary level. Argentina, Brazil, Kenya, and Sénégal were using computers to develop critical thinking, creativity, and problem solving. A survey of 14 urban and rural schools in Egypt found that most of the schools had a computer and several software programs.
- School libraries and supplementary reading materials have received growing attention in the past decade. Indonesia developed 117,000 school libraries with a total collection of about 106 million books, an average of 900 per school. Jamaica provides a substantial annual allocation for school libraries and its library services is a model for the Caribbean region.
- Some countries are developing community resource centers connected to schools, and widely used by teachers and students. For instance, the Ghana Book Trust, supported by CODE, bought about US\$45,000 worth of books in the mid-1990s, all of them written and published by Ghanaians, and distributed them to community libraries throughout the country.

### Textbook provision

- Students in public schools across the globe receive textbooks in three possible ways:
  - *Free of charge, provided by the state* - This practice aims to ensure equity and is common in countries of Asia, Africa, and Latin America, mostly for students at the primary level. Generally, the books are lent to the students and must be returned at the end of the year;
  - *Sold through commercial channels* - In this case, parents buy the books through retail outlets. This practice inevitably leads to inequities that favors the wealthy and those who live in urban areas;
  - *Book rental* - Under this method, a school may buy or receive the textbooks and issue them to students in return for an annual fee. This practice enables the schools to amortize the cost of books, while avoiding having parents bear the cost through individual purchases.
- In virtually every country of the world, the state is involved to some extent in the provision of learning materials, at the very least by establishing the curricula on which school books are based and, even in the freest of markets, by buying some or all of the materials used in the public school system.
- In many countries, state-owned or parastatal organizations have the monopoly of textbook publication. Even in countries with large commercial publishing industries,

such as India, the state might retain responsibility for publishing textbooks for the public system. In others, local companies, sometimes in joint ventures with foreign publishers, have entered the market. Regional cooperation in publishing is still rare.

- Despite some increase in locally developed publications, exports from European countries to former colonies are still significant. Partnerships between foreign and local publishers are also expanding (e.g. Canada's *Fraternité Matin* joined *Jamana* in Mali to publish grammar books). International agencies, such as UNESCO, played an active part in joint ventures.
- Constraints related to the provision of textbooks to public schools include:
  - *Financing* - Textbook publishing is a capital-intensive business that may require two to three years to recoup the initial investment. Investors find textbook publishing unattractive, and governmental investment is dependent on economic stability. Nigeria, for instance, established an Education Trust Fund, analogous to its agricultural development banks, to provide soft loans to publishers and others involved in producing learning materials.
  - *Production* - Costs vary according to many factors, such as local availability of paper, printers, and transport, mismatches in equipment, and protectionist tariffs. Paper remains the principal expense.
  - *Distribution* - Geographical obstacles, poor condition of roads and scarcity of trucking are significant challenges for the distribution of textbooks in developing countries. State-supported distribution systems are hampered by lack of funds and storage place. In countries where books are sold through retail outlets, bookstores tend to be scarce in the urban center and almost unknown outside the cities. Kenya sought to resolve the problem by consolidating school orders for textbooks at the district level and then ordering the books from local booksellers. This process strengthens the retail sector and reduces the discrepancies that occurred under central procurement.
  - *Information* - Efficient provision requires accurate and timely information on which to project enrolments and textbook needs by school, grade and subject. This kind of information is difficult in countries where communication by telephone or mail is unreliable. Moreover, centralization may increase errors, as the data moves through the many bureaucratic layers.
  - *Human resources* - The lack of professionally trained staff is a challenge for both state and private publishers in most countries. Training on this area has received more attention in the past decade. The African Publishing Institute is a training wing of the

African Publishers' Network (APNET), established in 1992 with the help of several funding agencies, both governmental and NGO. The Institute runs national and regional workshops, using a comprehensive syllabus in book publishing and management. The Asian Cultural Center for UNESCO, supported by the Japanese Ministry of Education and the Japan Book Publishers Association, runs a similar initiative for Asia and Oceania.

- The following trends characterized the provision of books in the second half of the 1990s:
  - decentralization of selection and procurement, with more involvement of local governments and stakeholders, including teachers, parents, students;
  - economic liberalization with a greater role for the private sector, particularly in countries with an already established publishing sector; and
  - cost recovery to achieve systemic sustainability through improved efficiency in production and governmental support.

### Looking to the Future

- The trends towards decentralization and liberalization in textbook production and publishing will continue to reduce the inefficiencies of centralized government operations. It is expected that competition and local choice will produce better textbooks, which are pedagogically innovative and more appropriate for their users.
- Textbooks produced by the private sector for sale should be steadily available as long as they are in demand, replacing the peak-and-valley system that characterized many state-based systems (replacement of books in core subjects in one or two grades per year, followed by minimal attention to those grades while the needs of other grades are addressed, followed by the wholesale need for replacement in the original grades).
- The rate of increase in the primary school-age population worldwide will slow down in the first decade of the 21st century, relieving the strain on some national economies. Eastern Europe and Central Asia are already showing a decline in enrolment rates, and a similar decline is expected to occur in the next decade in East Asia and Latin America. A slower, but steady increase of primary-school-age children is expected in sub-Saharan Africa, South Asia, the Middle East, and North Africa. These regions include the countries where the book shortage is greatest and poverty most severe.
- Partial or full cost recovery policies will relieve the burden on government and reduce dependence on external assistance. However, these policies may penalize the most disadvantaged sectors of society. Targeted subsi-

dies may reduce the impact on some of those affected, but not necessarily all. In the Philippines, for example, education projects funded by the World Bank and Asian Development Bank are directed only at the poorest provinces of the country, containing little more than one-third of the country's poor. The government is left to find the money for the rest. A concentration on rural poverty does nothing to assist the urban poor who populate the slums of Manila.

- Government support for education will continue to be restricted by national poverty, fiscal austerity related to structural adjustment, conflicting priorities, inefficient collection of taxes, poor management, and, in many countries, war.
- Supplementary reading and other learning materials, and school libraries, will continue to have a lower priority than textbooks and work books in strained fiscal budgeting. The textbook will remain the sole resource in education, for teacher and student alike.

### What can be done?

Some of the recommendations from a worldwide survey sponsored by ADEA/UNESCO included the following:

- Governments should:
  - liberalize the publishing/bookselling/printing market, if a centralized system exists, or allow the private sector to operate freely;
  - encourage publishers to invest in education, and offer incentives, such as removing duties and taxes on imported paper and other printing materials and equipment;
  - revise curricula less frequently (a five-year period is advisable) to enable cost recovery;
  - include textbook purchase in education funding and provide subsidies to keep prices down;
  - encourage partnerships between local and foreign partners;
  - establish and maintain school and public libraries; and
  - develop comprehensive policies that place a high priority on education. These policies should encourage the production and supply of books, enforce copyright legislation, and encourage the writing, translation, reading, and use of books.
- The private sector should:
  - get more involved in textbook provision, through larger investment, greater professionalism, expansion of existing operations, and better distribution systems;
  - work together in national professional associations to share experiences and lobby governments, and

work alongside governments in developing practicable national book policies;

- produce more, better-quality, relevant books, encouraging local authors;
  - educate teachers in the selection of appropriate materials and in ways to make the best use of the textbooks they have selected; and
  - seek support for worthy publishing ventures from foundations, corporations, and other non-publishing parts of the private sector.
- Funding agencies should:
    - take steps to share information, avoid duplication of effort, and monitor projects effectively; consult with publishing experts at an early stage of a new project to ensure quality of design;
    - support capacity-building initiatives, working within established structures and existing organizations, sponsoring the development of rural libraries and national library systems;
    - add flexibility to funding schemes, and reduce strict conditions; support small indigenous publishers through purchase or subsidies; purchase more books for educational institutions;
    - provide grants for the writing of high quality textbooks and commission works in certain areas; support training in publishing and other book trade skills, particularly in new technology, and sponsor training programs for teacher-trainers in educational technology and techniques;
    - support micro-credit programs in communities to finance the making of supplementary materials (puppets, cloth books, models, work cards, recorded children's music, etc), and support educational initiatives that incorporate local culture, including reading materials, musical instruments, traditional storytelling, and folk theatre; and
    - work with governments to ensure that their programs and projects form part of an overall long-term strategy for book development, and assist governments to develop sustainable mechanisms to ensure and monitor the quality of learning environments.

*"None of the recommendations is impossible. They have been made by men and women - civil servants, publishers, consultants - with practical experience in the development and provision of learning materials. They require action by all partners in the book chain, from curriculum developers through to classroom teachers. But mostly they require governments to recognize, with actions as well as talk, that the basic tools of education are not a drain on the national budget but a powerful investment in the economy and the future of the nation. When the political will is present, the shortage of learning materials will disappear."* (Montagnes, 1999, p. 106)