

UNESCO International Bureau of Education (IBE)

Expert meeting on comparative curriculum and textbook research

Geneva, 10 December 2010

Summary of the discussions

The expert meeting, conceived as a brainstorming session, was organized by UNESCO-IBE in order to: (i) share and discuss the results of the recent UNESCO-sponsored comparative study of the reading and mathematics curriculum in the (upper) primary grades of developing countries; (ii) present and discuss other on-going research projects concerning the cross-national comparative study of school curricula, including updated IBE databases; (iii) share ideas about areas of possible comparative curriculum research to be undertaken by IBE; (iv) identify areas for future comparative curriculum analyses to be considered in the medium- and long-term period; and (v) use existing networks to develop new synergies with other institutions and initiatives involved in the comparative study of school curricula and textbooks.

After the welcome address by the IBE Director, Dr. Clementina Acedo, the working session was opened by Prof. Aaron Benavot, who presented the main findings of a recent UNESCO-sponsored comparative study of the reading and mathematics curriculum (*Learning to read and numerate in the developing world: Cross-national commonalities and differences in the intended curriculum in primary school reading and mathematics*, May 2010). The study examined the extent to which diverse developing countries around the world define similar (or different) curricular contents for upper primary grade reading/language and mathematics in their official guidelines and textbooks. To this end, the study analyzed almost 400 official guidelines, textbooks and other curricular documents that provide information about the intended contents in reading and mathematics in grades 4-6 for about 58 developing countries (or autonomous education systems). The compiled documents were categorized in two broad categories: (i) textbooks and exercise books; and (ii) official curriculum frameworks and guidelines.

It was found that textbooks are typically developed by curriculum specialists and subject experts (many of whom work in academia or outside the country's educational system) and are used extensively by teachers for instructional purposes. It can be said that textbooks translate general curricular policies into concrete pedagogical activities that teachers and students enact in the classroom. As such, they are suggestive of policy enactment, and have been characterized as the “potentially implemented” curriculum—in other words, a mediator between policy intention and

policy implementation. By contrast, official curriculum statements and guidelines tend to be more comprehensive documents, prepared by Ministry of Education officials, containing policy information for multiple subjects and grade levels. They provide an overall rationale and blueprint of curricular activities to be implemented. Such documents act as policy directives that schools, principals and teachers are meant to put into practice.

From a global perspective, the pool of analyzed documents provided a more representative picture of official policies and textbook contents in three regions: Latin America and the Caribbean, East Asia (excepting the Pacific), and South and West Asia. More work will need to be done in the future to obtain additional materials from countries in the Arab States, sub-Saharan Africa and Central Asia, in order to provide a more representative picture of curricular patterns in these regions.

Three main questions were addressed in the study: (i) To what extent do diverse developing countries in the world define similar contents and performance expectations in reading and mathematics in the upper grades of primary education? (*the commonalities issue*); (ii) To what extent do the content domains of official curriculum statements in reading and mathematics align with those found in relevant textbooks? (*the alignment issue*); and (iii) In which countries are performance expectations in mathematics curricula more (or less) cognitively challenging? (*the challenging curriculum issue*).

With respect to mathematics, among the large and diverse array of grade 5 and grade 6 mathematics textbooks analyzed in the study, a surprising number of common contents and performance expectations was identified. Common ground in content domains was also found, but to a lesser extent, in the official guidelines concerning the mathematics curriculum produced by ministries of education. In the reading curriculum, by contrast, developing countries hold divergent views about the types of texts to use for instructional purposes, and the specific curricular contents to be taught in the upper primary grades. The definition of student performance expectations is the only area of the reading curriculum where commonalities were found across 70% of the countries analyzed. Overall, the findings point to many fewer commonalities across a wide range of texts, topics and issues in the reading curriculum that grade 5 and 6 students are expected to study. This is especially true in relation to official curricular guidelines and a bit less so in relation to textbooks. The contrast between the intended curriculum in mathematics and reading is quite stark. Overall, the evidence suggests that official curricular guidelines in reading tend to be rather general documents lacking specification, and that the authors of such guidelines and those of textbooks utilize rather different vantage points when defining the structure and purposes of written texts that primary students are expected to learn.

Another interesting finding concerns the alignment of textbook contents with official curricular guidelines and statements. In most of the developing countries studied, the percentage of aligned contents between these two types of documents tended to be quite low, although somewhat higher on average in mathematics than in

reading. There was little indication that authors of grade 5 and 6 textbooks carefully follow explicit policy directives in devising textbook contents in mathematics and reading. Overall, not only are there more commonalities in mathematics than in reading across diverse developing countries, but there are also more shared contents, or closer alignment, *within* countries between the intended and potentially implemented curriculum in mathematics.

With respect to cognitively challenging contents in mathematics two clear patterns emerged. First, not surprisingly, the prevalence of cognitively challenging mathematics curriculum and textbooks tended to increase by grade level. This was more apparent among textbooks, but was also apparent in official guidelines. Second, the definition of more cognitively challenging standards varied considerably across countries both in grade 5 and in grade 6. Thus, the evidence suggests that performance expectations in mathematics in many developing countries are quite high, and increase between grade levels.

Overall, the study indicates that diverse developing countries hold a fairly consensual and detailed view of what should constitute the mathematics curriculum in the upper grades of primary education—both in terms of contents and performance standards. This suggests an ongoing trend: the growing diffusion and institutionalization of select curricular reforms in the educational policy environments of many developing countries. (Little information was provided about the agents and agencies involved in this process). With respect to the reading curriculum, a more fragmented or heterogeneous picture emerges. There is only minimal evidence of agreement concerning the intended contents and structure of the upper primary grade reading curriculum. Performance standards represent the one notable exception in the realm of the reading curriculum, in which a clear set of cross-country commonalities emerged. Most of the developing countries analyzed in this study do share a common notion as to the kinds of reading competences students should attain by the end of the primary cycle.

The large number of common content domains prevalent in the upper primary mathematics curriculum of many developing countries suggests that the most common types of testing schemes (e.g. tests with small numbers of items) are probably inappropriate for making inferences regarding the levels of achievement of students. Indeed, when considering whether to participate in international testing programmes, such as TIMSS (Trends in International Mathematics and Science Study), it is extremely important for developing countries to expand the capacity to conduct sensible studies focusing on the curricular elements most aligned with their own policy expectations. Thus, participation in these studies can provide an important opportunity to challenge local notions of appropriate curricular expectations and, more importantly, evidence as to how well curriculum intentions are actually met in local classrooms as measured by student achievement in the relevant curricular domains.

Following Prof. Benavot's presentation, several colleagues put forward ideas to account for the significant lack of alignment between curricular policy intentions and textbook contents in mathematics and reading: for example, the relatively insular world of textbook writers; the lack of specificity in official guidelines and statements; the different target audiences that official statements and textbooks address; the high expense involved in revising/adjusting textbooks so they are in line with reformed curricular intentions. Also there is some evidence that editors, authors and even curriculum designers tend to rely more on past practices and existing materials, even when strongly urged to operationalize "new" ideas in the next generation of materials.

Discussions also revolved around possible comparative curriculum research themes and areas that could to be considered in the future. The main results of these discussions are summarized below.

1. Comparative analyses of official intended curricula:

1. Broader (and up-to-date) analyses of the official intended curriculum considering: (a) detailed school subjects and educational contents listed in national (or sub-national) timetables; (b) general content areas or categories of educational knowledge; (c) curricular emphases; (d) intended instructional time (in annual hours) devoted to (a) or (b). The UNESCO Institute for Statistics is planning (tentatively) to launch a survey in 2012 to which the IBE can provide recommendations.
2. Focus on emerging topics and themes related to the school curriculum: competence-based curricula; early childhood care and education curricula; effective uses of ICTs; curricular structures in non-formal (as well as formal) contexts of learning; key elements characterizing a "quality" curriculum; language policies in education as reflected in official guidelines and curricula.

2. Studies of national curricula in relation to the Dakar goals:

1. Analyses of the degree to which intended national school curricula (national educational objectives, curricular guidelines and timetables, intended syllabi, and textbooks) introduce subjects or content areas that are specified in the Dakar Framework for Action, such as literacy, numeracy, life skills, democratic values and attitudes, gender sensitivity.
2. Analyses on the relationship between intended school curricula and key learning outcomes, including skills and competencies, in the above-mentioned subjects or content areas.

3. Studies/analyses of the implemented curriculum and the curriculum implementation process:

1. Consideration of new data collection and analysis strategies of the implemented curriculum at the school and/or classroom levels. In particular, consider ways to address questions such as: how are official intended curricula

actually implemented in local schools and individual classrooms (e.g. the curriculum in use)? To what extent is there within-country variation in the implementation of: (a) school-level weekly timetables; (b) course syllabi used by teachers or teacher lesson plans; (c) school textbooks in use; (d) pupil notebooks of course contents; (e) school-level calendar; and (f) in-class written assessments, school curricula, national assessments.

2. Consider alternative models of how the curriculum development and implementation processes are more or less tightly aligned. For example, how do different countries assure official intended curricula are translated into textbooks, teachers' guides and in-service teacher training; into timetables by grade or subject; and into a school calendar of instruction and weekly time management? And how are these reflected in pupil notebooks and achievement assessments? To what degree do general implementation patterns emerge across national education systems?

Annex: Participants and agenda of the meeting

Participants

Prof. Aaron Benavot, Department of Educational Administration and Policy Studies, School of Education, University at Albany, State University of New York, USA.

Prof. Ferran Ferrer, Professor of Comparative Education, Autonomous University of Barcelona, Spain.

Dr. Ian Hill, Deputy-Director General, International Baccalaureate Organization, Geneva, Switzerland.

Dr. Ienne van der Velde, Netherlands Institute for Curriculum Development (SLO), Enschede, Netherlands.

Dr. Jean-Damascène Gasanabo, Researcher/Consultant, Geneva, Switzerland.

Thibaut Lauwerier, University of Geneva, *Faculté de psychologie et des sciences de l'éducation*, Switzerland.

(*Note: Unfortunately, three expected participants have been obliged to cancel their attendance at the very last minute due to unforeseen circumstances.*)

IBE staff:

Dr. Clementina Acedo, IBE Director.

Mr. Massimo Amadio, Senior Programme Specialist

Mr. Renato Opertti, Programme Specialist

Mr. Elmehdi Ag Muphtah, Consultant

Ms. Jayne Brady, Research Fellow

Ms. Mariana Cruz Murueta, Research Fellow

Mr. Philippe De Castro, Research Fellow

Ms. Laura Nicollin, Intern

Ms. Ming Jin, Intern

Agenda

Morning session

- 9:30–9:45 Welcome by C. Acedo, Director of UNESCO-IBE, and presentation of the participants
- 9:45–10:15 Presentation of the results of the recent UNESCO-sponsored comparative study of the reading and mathematics curriculum (A. Benavot)
- 10:15–11:00 Comments and discussion
- 11:00–11:15 Coffee/Tea break
- 11:15–12:30 Presentation by participants of other on-going or planned research projects/comparative studies of school curricula
- 12:30–14:00 Lunch

Afternoon session

- 14:00–14:30 Comments and discussion on the presentations by participants
- 14:30–15:30 Brainstorming session on areas and topics of possible comparative curriculum research and analyses (short-, medium- and long-term period) and potential areas of collaboration
- 15:30–15:45 Coffee/Tea break
- 15:45–17:00 Brainstorming session (cont.).
Summary and conclusions (beyond 17:00 if needed)
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