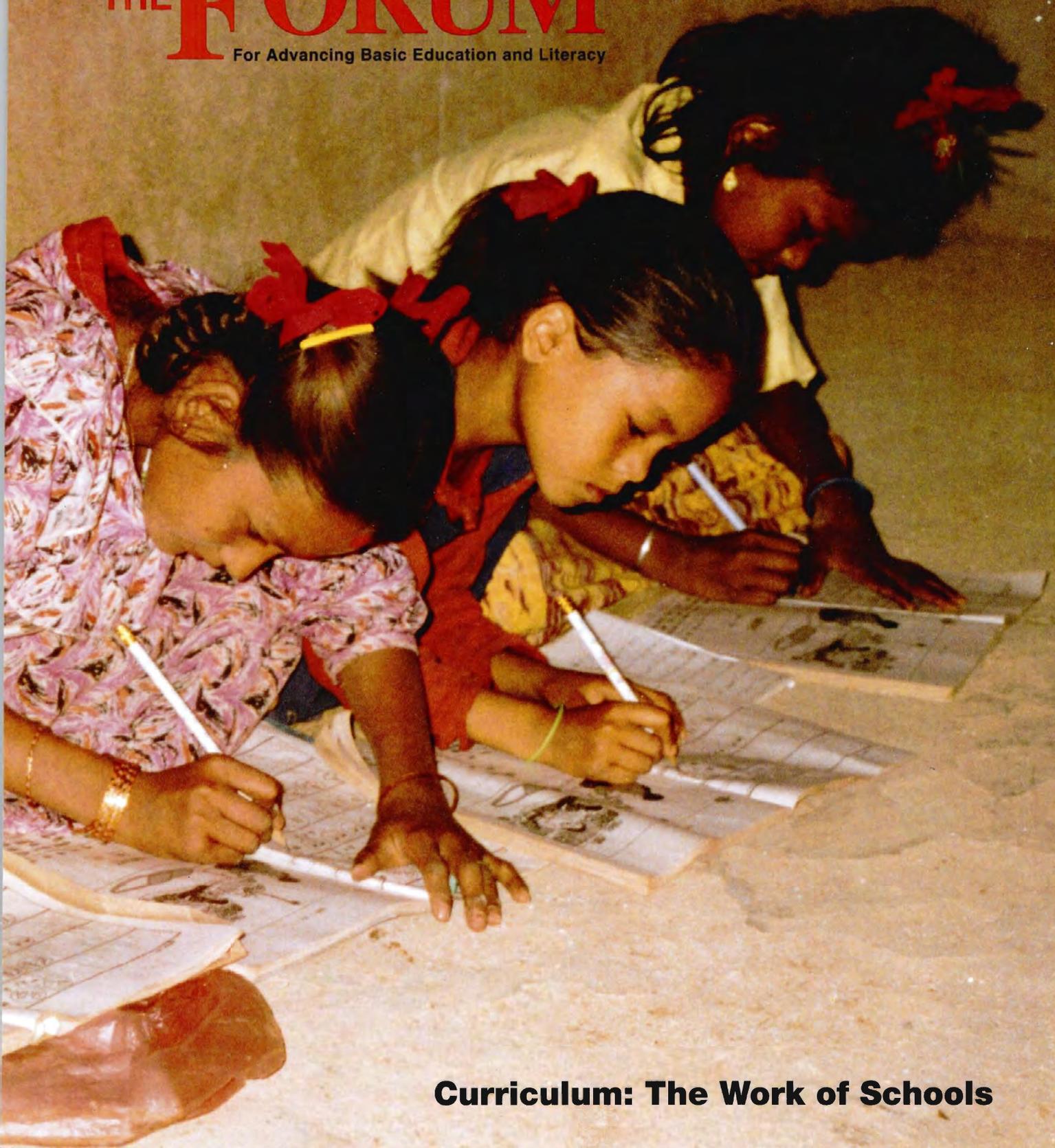


# THE FORUM

Volume 2, Issue 2, February 1993

For Advancing Basic Education and Literacy



**Curriculum: The Work of Schools**

## To Our Readers

According to one perspective, reforming the curriculum is a poor way to try to improve basic education in developing countries. This rather pessimistic point of view draws support from several sources. Cross-national studies of curriculum have found few differences in national syllabi across countries. In terms of the official curriculum at least, schools appear to teach much the same thing the world over. Evaluations of curriculum reforms in a number of national contexts have not found strong evidence that changes in official curricula are systematically related to gains in children's achievement. As a result, critics argue, scarce national resources should be invested in inputs with a greater demonstrated impact on student achievement.



Chij Shrestha / World Education

*In a very real sense, however, curriculum is what schools do. If curriculum reform does not work, is education simply a matter of inputs? Does the process of education make no difference whatsoever?*

*In thinking about curriculum, it is important to distinguish among intended, implemented and attained curricula. What teachers teach — the implemented curriculum — is both less and more than the intended curriculum. Similarly, what students learn — the attained curriculum — is both less and more than what is taught. Changes in the official curriculum are only successful to the extent that they change the implemented and attained curricula. Viewed in this way, curriculum reform involves much more than revising the official syllabus.*

*The broad purpose of this issue of The Forum is to ask, from*

*several perspectives, whether the primary school curriculum truly promotes education for all and what would be necessary to make it do so. We begin by outlining ways in which the organization and delivery of the primary school curriculum discourage student learning.*

*Subsequent articles elaborate other ways in which the curriculum can exclude or include students: Moll-Druecker and Mwalwenje describe Malaŵi's efforts to increase gender sensitivity in the primary school curriculum. Obura focuses on the portrayal of girls and women in teaching materials. Hutchison looks at the educational implications of choice of language of instruction, a choice often made on the basis of political or social values rather than pedagogy.*

*The article by Cultural Survival presents a series of cases in which schools incorporated local cultural material into the curriculum to promote learning among children of marginalized social groups. Comings reports on a successful nonformal education project in Nepal through which illiterate parents and their out-of-school children were taught to read and write through use of a curriculum more flexible and responsive than that used in the formal schools. Dall sums up the perspective of the survival skills movement with a clear statement of what he feels children should get from primary education. In doing so, he raises the larger question: What should children learn in school?*

*A second set of articles considers some elements necessary for successful reform of*

*the curriculum. Jansen begins with a strong statement of seven "myths" of curriculum reform efforts in Africa. Villegas-Reimers points to teacher training as an essential element of curriculum reform. Somerset reports on ways in which selection examinations, typically a major barrier to curricular change, can be used to improve classroom instruction. Prouty, Eiseimon and Schulle report on research which indicates the positive role that supervision of teachers by principals can play in improving student learning.*

*Throughout this issue — my first as editor of The Forum — we have worked to provide a broad reporting of opinion, projects and research. Your comments and suggestions, letters, articles and photographs are welcome.*

*— Jim Williams, Editor*

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for Advancing Basic Education and Literacy  
Harvard Institute for International Development  
One Eliot Street  
Cambridge, MA 02138, USA  
Tel: 617-495-9478  
Fax: 617-495-0527  
Telex: 275276  
Cable Address: HIID  
TWX No: 7103200315

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## Curriculum and Access

It is sobering to consider the number of children who do not complete primary school. As shown in Table 1, 14 out of every 100 primary school age children never enroll in school (all calculations based on 1988 figures). Twenty-five out of 100 enroll but drop out before acquiring permanent literacy about Grade 4. Ten out of 100 children finish Grade 4 but not primary school, and seven end their formal schooling after primary school. Thus almost half the world's children do not get a full primary education. If the notion of access is broadened to include attainment of primary schooling, then reform of the primary school curriculum becomes an issue of access.

In most schools the curriculum is organized not around the needs of children or the skill of teachers but around the convenience of administrators. For example, school is almost invariably scheduled during the day. As a result, poor parents who rely on their children's contributions to the family economy must choose between education and livelihood. Many parents choose to keep their children out of school. Yet as shown by schools run by the Bangladesh Rural Advancement Committee and other alternative basic education programs, out-of-school children stream to



UNICEF/Sean Sprague

school if classes are scheduled at convenient times and near their homes.

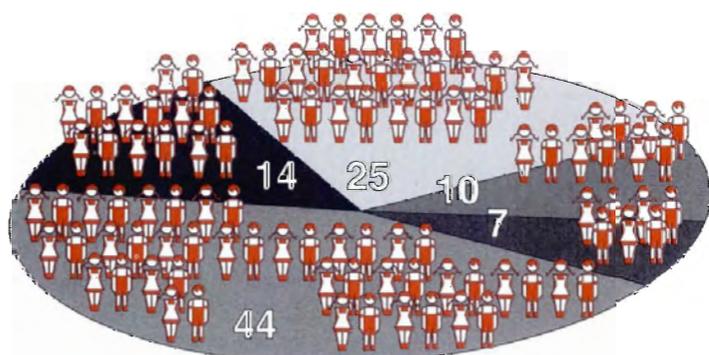
We know that children enjoy learning but that they acquire different skills at different speeds. Yet the curriculum in most schools is structured on the assumption that children learn well, sitting in rows, quietly, with one adult and 30 to 50 children of the same age, forsaking virtually all other activity, and studying the same material at the same pace during the same hours each day almost every day for six to twelve years. A child who fails to keep up with the pace set by the school is marked as slow and as a possible failure. Yet it is equally possible to view the school as the failure, having failed to meet the learning needs of the child.

Even as the scheduling of classroom instruction makes it difficult for many children to learn in school, however, the organi-

zation of most instructional materials prevents children from learning outside of school. Why do we write textbooks that can only be used by teachers, when parents, older children and peers might enjoy teaching the child from time to time, or when the child might learn on his or her own?

The presentation of curriculum reduces children's attainment in ways that are unnecessary to the learning process, and have nothing to do with the stated goals of education. Only when we mass produce education do we see people this way. Does a mother consider a slow eating child deficient? Would we flunk a child who failed to grow as quickly as another child? The system is not even pedagogically efficient. Why slow down a bright child to keep him or her with a class? Why "help" a slow learner by requiring repetition of an entire year?

**Table 1. 100 Primary School Age Children in the World in 1988**



- 14 Never enrolled in school
- 25 Enrolled but dropped out before acquiring permanent literacy
- 10 Became literate but dropped out before finishing primary school
- 7 Finished primary school but did not get into/go onto secondary school
- 44 Began secondary school

N.B. Calculations based on weighted averages using data for all available countries for 1988. Considerably higher proportions of children fail to complete primary school in poorer countries.

Source: UNESCO, UNICEF

Much of the problem lies in rather mechanical notions of teaching and learning. We talk of “delivering” curriculum, as if it were a package or a hot meal, complete and ready to serve. Curriculum is “implemented,” as if an operator were all that was needed. Yet these metaphors freeze our sense of possibility. If the curriculum is finished

before arrival at the school, what more is there to be done? Such a perspective blinds teachers to the ways they interpret the curriculum.

A better approach might be to work toward increasing rather than narrowing teachers’ capacities. Would education be different if it were seen through

older, agricultural metaphors in which children were “raised” and their minds “cultivated”? What would teacher training programs look like if the task was to help teachers become skillful farmers? Would education for all be closer to reality if each child was treated as a rare and valuable yet fragile seed? ❖

## A Critical Perspective on Curriculum Reform

by Jonathan Jansen

*Jonathan Jansen is head of Project ABEL South Africa (Advancing Basic Education and Literacy). Dr. Jansen used the following points to lead a recent seminar on educational reform organized by USAID for its Human Resource Development Officers in sub-Saharan Africa.*

Seven persistent myths about curriculum reform have undermined well-intentioned reform plans in Africa. These seven myths — and arguments to debunk them — are:

**1. MYTH:** Textbook provision is a preferred investment strategy in curriculum reform.

**JANSEN:** This theory is based largely on work emanating from the World Bank and driven by sophisticated statistical analyses. A fundamental flaw in these studies is their neglect of the fact that investment in any input strategy is likely to boost achievement in the African context, in view of the generally low education resource base.

**2. MYTH:** Curriculum reform is a largely technical task, neatly separable from politics.

**JANSEN:** An historical review of curriculum reform in Africa reveals that politics is by far the strongest determinant of curriculum reform, and that de-linking the planning of curriculum from politics is unsuccessful. What is needed is to recognize the central role of politics and open up the curriculum decision-making process to broader participation.

**3. MYTH:** Curriculum change is primarily concerned with the revision or updating of content and its packaging as “learning materials”.

**JANSEN:** It is not worth the effort to change the content or repackage materials without simultaneously changing teacher behaviors, student patterns of learning, parental expectations and examination structure and content.

**4. MYTH:** Curriculum change is best promoted through a decentralized structure of governance.

**JANSEN:** The pendulum swings in the decentralization-centralization debate. What is needed is not a blind commitment to either strategy but an honest specification of what is to be decentralized or centralized.

**5. MYTH:** Curriculum reform in the 1990s is based on “evidence” of what works and on stores of information on curriculum reform.

**JANSEN:** The knowledge base for curriculum reform is virtually nonexistent. We know very little about why reform fails. Action has outpaced reflection.

**6. MYTH:** Student achievement is a measure of curriculum quality.

**JANSEN:** Since we do not have strong measures of the quality of learning in African schools, it is premature to attribute successful test scores to the curriculum.

**7. MYTH:** Teachers are the most important agents of curriculum change and should therefore play key roles in the design and implementation of curriculum reforms.

**JANSEN:** The assumption that in the African context teachers are sufficiently trained to lead such a complex task as curriculum design is erroneous.

Jonathan Jansen can be contacted at the ABEL South Africa project, located at Auckland House, 12th Floor, PO Box 32195, Braamfontein, South Africa. ❖

# Toward Gender Sensitivity in Malaŵi's Primary School Curriculum

by Bettina Moll-Druecker and Dora Mwalwenje

In Malaŵi, as in many countries, girls have fewer educational opportunities than boys. The push for universal primary education does not guarantee gender equity (in terms of access to schooling or achievement), unless supported by programs, financing and facilities.<sup>1</sup> Educating girls is among the investments most likely to improve personal and community well-being, because of social outcomes such as increased agricultural productivity,



higher rates of economic growth and better health.<sup>2</sup> Thus, educating girls is both a socio-economic and an equity issue.

While it is difficult for schools to address home and community factors that reduce girls' attainment,<sup>3</sup> several factors affecting girls' attainment are under the direct control of the education system: the presentation of instructional materials; the practices of classroom teachers; and the policies that, intentionally or not, may have a harsher impact on girls than on boys.

Increasingly aware of these issues, the Government of Malaŵi decided to improve the gender sensitivity of its primary school curriculum. The Government considers this effort important, not only because of inequity but because gender bias works at cross-purposes with Malaŵi's curriculum and national development goals.

## Portrayal of Girls and Women in the Curriculum

Gender bias can be found in the way girls and women are portrayed in textbooks and other instructional materials. Textbooks play a powerful role in determining how children understand themselves in relation to family, community and the larger society, particu-

larly when instructional materials are a primary or official source of information about the outside world. Gender bias can manifest itself in:

- Visual images used to portray girls and women
- Words used to describe girls and women, boys and men, social roles, activities, and functions
- Examples used for practice and illustration
- Links between curricular objectives and instructional materials

A preliminary analysis of Malaŵi's primary school curriculum revealed considerable gender bias: there were far fewer images of girls/women than of boys/men. Females were generally either absent or portrayed negatively in paid employment and socio-political roles. Women were not shown as having played an important role in Malaŵi's history or culture, apart from their roles as mothers and wives. Masculine terms were used generically to describe activities carried out by both men and women. Men were associated with modern technologies, women with traditional ones. Thus, a child relying on the official curriculum for a vision of adult life would see men as the dominant actors in society, with women only playing a subservient, almost hidden role.



## Gender-Biased Classroom Practices

Girls' achievement is also influenced by the implementation of curriculum. Review of research, discussions with teachers and school officials and classroom observation suggest a number of ways in which classroom practice may

hinder girls' achievement, regardless of the content of the intended curriculum.

Teachers often pay more attention to boys, calling on them and rewarding them more often than girls.<sup>4</sup> Pupils are often streamed by

gender; girls are placed in home economics classes, and boys in science classes. Teachers often communicate their belief that girls are less capable of academic achievement, particularly in mathematics and science. In short, teachers may reinforce traditional role expectations for girls, even if doing so means that girls learn less of the official curriculum.



## A Process of Increasing Gender Sensitivity

To increase the gender sensitivity of the primary school curriculum, the Ministry of Education and Culture worked with USAID under the auspices of Project GABLE (Girls' Attainment in Basic Literacy and Education). One important step was the establishment of a Gender Unit at Malaŵi's curriculum development center, the Malaŵi Institute of Education (MIE).

The work of the Gender Unit was organized around three principles: First, successful interventions must involve changes in classroom behavior as well as in the official printed curriculum. It is not enough to revise textbooks; teacher training is essential. Second, a long-range process of collaboration rather than a one-shot intervention is required to integrate gender sensitivity into the curriculum. Finally, gender sensitivity is most fruitfully addressed within the larger context of helping schools better achieve their overall cur-

ricular objectives rather than simply targeting the under-achievement of girls.

The Unit's work is facilitated by the fact that Malaŵi is undergoing a complete revision of its primary curriculum. A lecturer posted at the Malawi Institute of Education provides pre-service and in-service teacher training on gender sensitivity as well as on-going technical assistance to the various teacher training colleges, curriculum writers' workshops and to the Ministry on issues related to gender within the primary school curriculum.

As part of this on-going process, work to date has involved several different activities:

- 1) A wide-ranging analysis of ways in which schools work against girls' attainment. Discussions with educators and policy-makers throughout the system
- 2) Seminars and training sessions to increase the sensitivity of curriculum writers, teachers, school officials, district, regional and national administrators to ways in which schools may be preventing girls from reaching their potential
- 3) Revision of Standard 3 and 4 textbooks and other instructional materials to better reflect the curriculum objectives (The work is coordinated with the on-going revision of the primary school curriculum, which began several years ago with Standard 1 and has now reached Standards 3 and 4.)
- 4) Training of teachers and school administrators to see the ways in which girls are disadvantaged in schools
- 5) Beginning the process of re-examining and reformulating policies to enhance the education of girls

In coming months the Gender Unit will elaborate its workplan. Guidelines

developed for curriculum writers and teacher trainers will be put into practice. A process is being developed to review all curricular materials and to make gender analysis a permanent part of the curriculum review process. ❖



Bettina Moll-Druecker is a consultant on curriculum and education for Creative Associates in Washington. Dora Mwalwenje is Lecturer on Gender Studies and Curriculum at the Malaŵi Institute of Education, Domasi, Malaŵi. Additional information can be obtained from Creative Associates, 5301 Wisconsin Avenue NW, Suite 700, Washington DC 20015, USA or from Project ABEL, Academy for Educational Development, 1255 23rd Street NW, Washington DC 20037, USA.

### Notes

- 1 Project ABEL, 1991. *Educating Girls: Strategies to Increase Access, Persistence, and Achievement*. Washington DC: Academy for Educational Development.
- 2 Lawrence Summers, 1992. "The Most Influential Investment," *Scientific American* 267(2).
- 3 Attainment in school is defined as enrollment, persistence and completion.
- 4 Jean Davison and Martin Kanyuka, 1992. "Factors Affecting the Education of Girls in Southern Malaŵi," *Comparative Education Review* 36(4).

Felicity Malewezi, 1988. *Some Factors which Contribute to Girls' Underachievement and Lower Participation in Mathematics in Malawian Secondary School* (Thesis). Leeds, United Kingdom: University of Leeds.

Drawings are reprinted from 1992 Malaŵi Primary School Leaving Certificate Examination, courtesy of The Malaŵi National Examinations Board.

It is interesting that only men are shown farming. In fact, most of Malaŵi's agricultural work is carried out by women.



## Gender-Sensitive Questions

The following questions suggest alternative ways of portraying girls and women in instructional materials. The questions were adapted from Anna P. Obura, 1991. *Changing Images: Portrayal of Girls and Women in Kenyan Textbooks*. Nairobi: African Centre for Technology Studies Press.

1. **Invisibility.** How often do women/girls appear in the text? Are there fewer illustrations of women/girls than men/boys? Is there a balance of gender-indicated words? Is there a frequent failure to name females?
2. **Dependence.** Are women/girls presented as autonomous individuals or only in relationship to males? Are women/girls presented as subordinate or passive? Is there a lack of diversity in female roles?
3. **Leadership and Tradition.** How many images are there of women as leaders, entrepreneurs or engaged in non-traditional activities such as banking, medicine, etc? Are women leaders given as much text or illustrations as male leaders in history books?
4. **Men's Work.** Are there some fields (such as math and science) where references to men are more prevalent than references to women? Are men notably absent from interactions and work at home?
5. **Appearance and Emotion.** Are women/girls described in physical terms rather than in terms of achievement? Are women/girls portrayed as emotionally weak? Are women/girls portrayed as reactive rather than pro-active?
6. **Visual Reinforcement.** Do illustrations replicate and reinforce negative female images in the text?
7. **Overall Image.** Which characteristics would describe men/boys and women/girls in your textbooks: adventurous, independent, forceful, charming, hard-working, domestic, dull, pretty, striving for attention and admiration? ❖

# An Argument for First Language Instruction in the Formative Years of Primary School: The Case of Mali

by John Hutchison

Mali, like a number of countries, is in the curious position of providing education in a language that none of its citizens speak as a first language. Except for a few experimental schools in which the first several years of instruction are provided in one of the national (local) languages, all schooling in Mali begins and ends in French. French persists as the official language and the language of instruction almost 30 years after independence for three primary reasons: French is politically neutral, that is, not identified with a particular ethnic group. French is an international language, and thus provides access to international commerce and communication. Finally, French plays a powerfully symbolic role as the language of the educated elite.

The government recognizes, to a certain extent, the high personal and pedagogical cost of this language policy. The high dropout rate of roughly thirty percent is attributed largely to the inappropriate use of French-medium instruction in a curriculum largely unadapted to Malian needs. Yet French is maintained as the exclusive language of instruction largely out of the fear that children who spend time studying in their native languages will be disadvantaged in learning French. The reasoning goes as follows: if children do not learn as much French as we would like now, when all instruction is carried out in French, how much less would they learn if French-language instruction were postponed until later?

## Cognitive Development and Language of Instruction

This fear, however, is not supported by research; in fact, the opposite appears to be true (Cummins, 1985). The child who goes through a fairly lengthy period with the first language as the medium of instruction, completing his or her normal academic and cognitive devel-

opment in that language, will have much greater facility when s/he reaches the moment of taking on the foreign language. In the long run, this child will have a proficiency level with accompanying skills far more developed in both languages due to the longer exposure to learning in his/her first language.

Depending on the extent of cognitive development in the child's first language, it appears that instruction in a foreign language can have either a posi-

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**The child who goes through a fairly lengthy period with the first language as the medium of instruction, completing his or her normal academic and cognitive development in that language, will have much greater facility when s/he reaches the moment of taking on the foreign language.**

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tive or a negative effect on the child's subsequent academic development (Cummins, 1979). Before a certain threshold of cognitive development in the child's native language, intensive use of a foreign language to teach academic skills appears to retard develop-

ment in both native and foreign languages. At this point the effects of bilingualism are negative and subtractive.

After this threshold, however, instruction using a foreign language appears to have neither ill effects nor any particular benefit. Moreover, with continued development in the native language, the child passes a second threshold, beyond which instruction in a foreign language appears to intensify academic and cognitive growth in both languages, thus resulting in what has been termed "additive bilingualism."

## Types of Cognitive Skills

To make progress toward real literacy, the child needs to acquire at least two types of cognitive-linguistic skills. The first skills have been called basic interpersonal communication skills, the communication skills required for everyday life. The child acquires these skills naturally as a part of the normal process of maturation. The second type of skill is more abstract: the ability to function in decontextualized linguistic situations, as in academic settings. This second set of skills does not develop naturally but must be taught, though the teaching does not necessarily need to occur at school. For ease of reference, these skills might be called academic skills.

Basic interpersonal communication skills are acquired much earlier than academic skills. A child may be fluent in a second language in terms of interpersonal communication skills but lack any real competency in academic skills. However, the development of academic skills in the native language is what is necessary for optimal transfer to a foreign language and what is blocked by the imposition too soon of instruction in a foreign language.

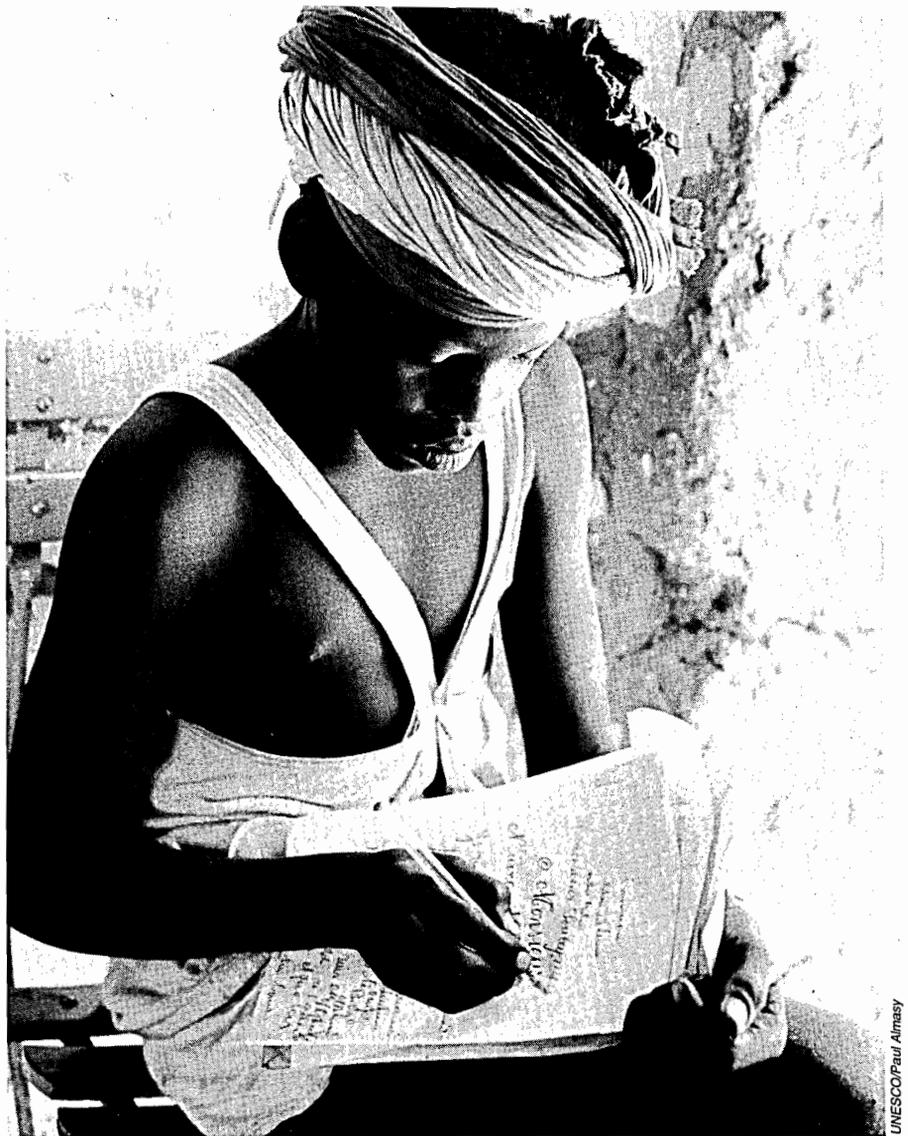
Critical to the development of academic skills is the extent of support and

reinforcement in the environment. The ideal learning environment is rich in linguistic stimuli, both verbal and textual. Parents in such an environment support the work of the school, are able and willing to help their children learn. Positive learning environments provide a coherency across children's school, home and community lives. When one or more of these elements is missing, children's academic growth suffers, and the time needed to build a sound cognitive foundation in the first language increases.

### Language and Learning in Mali

In the Malian context, these conditions interact to produce a very difficult learning environment. Before beginning school, children are exposed to very few academic stimuli in any language. On entering school, children must make the difficult adjustment to school and begin the process of acquiring academic skills in a foreign language while simultaneously learning the foreign language. There is little in the environment that supports what children do at school. Most parents are unable to speak, much less read and write, French. Children's work at school does little to develop the child's cognitive skills in his or her native language. Children's lives at home do little to reinforce schoolwork. It is difficult to imagine conditions less conducive to learning.

To address these problems, the Government established a number of experimental schools where national languages were used to provide instruction for the first several years of primary school. The use of native languages provided children in the experimental schools with more favorable learning conditions. However, after several years of instruction in the child's native language, instruction was suddenly switched to French, in a transition many children and teachers found difficult. Children were still not given sufficient instructional time in their native languages to develop the cognitive skills necessary for a smooth transfer to the foreign language. As a result, many



UNESCO/Paul Almay

children were unable to acquire adequate literacy skills in either their native language or in French. The cognitive needs of children continued to play little role in guiding curricular decisions.

In addition, the rest of the school system remained unchanged. The curriculum used in the experimental schools, for example, was not developed for native language instruction but was merely translated from the French. Students were evaluated in French, and as a consequence, teachers began to introduce French earlier than intended. The introduction of native language instruction in the experimental schools had relatively little impact.

To provide Malian children with the most effective education requires a willingness to orient the entire curriculum around the actual learning needs and conditions of Malian children.

Children who begin school in a national language will not lose the opportunity to learn French if they first learn how to learn in the language they know. ❖

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*John Hutchison is Associate Professor of African Languages and Linguistics at Boston University. For more information on this subject contact him at African Studies Center, Boston University, 270 Bay State Road, Boston, MA 02215, USA.*

### References

- James Cummins, 1979. "Linguistic Interdependence and the Educational Development of Bilingual Children," *Review of Educational Research* 49. Washington DC: American Educational Research Association.
- James Cummins, 1985. "The Construct of Language Proficiency in Bilingual Education," in James Alatis and John Staczek, eds, *Perspectives on Bilingualism and Bilingual Education*. Washington DC: Georgetown University Press.

# Local Cultures and the Curriculum: Three Successful Experiments

adapted from material supplied by *Cultural Survival*

Education is generally used to build a country's national identity. How, then, do countries deal with ethnic groups who may feel alienated from such an identity? How can education systems respond to apathy and alienation felt by students of such groups?

The following three experiments in Ecuador, Nepal and Mexico demonstrate how use of local culture in instruction can promote literacy in both native and second languages. Through a bicultural approach, marginalized groups may be able to find a place within larger cultures.

## Shuar Radio Education Project

In Ecuador 40% of the total population is Indian, a people colonized by the Spanish in the 1500s and later educated by Catholic monks. Missions and boarding schools were erected in the upper Amazon basin of Ecuador only in the late 1800s. Here, the area's Shuar Indians were taught in Spanish rather than the vernacular, and were persuaded to raise cattle rather than farm. Their mode of life changed forever. Children had to travel long distances to attend school. By the mid-1950s apathy, alienation and school dropouts were the norm. Only a small proportion of children completed primary school.

In the mid-1960s, however, the Shuar people came together to form the Shuar Federation. One of the aims of this federation was to eradicate illiteracy and promote Shuar culture as an integral part of the larger Ecuadorian culture. To this end, *Programa Radio Educacion* was formed. Missionaries worked with community leaders to set up workshops to train Shuar people as teachers in both the vernacular language and Spanish. Boarding schools were phased out, and children began attending school at community centers

equipped with radios and staffed with teachers from the community.

By 1973, 63 community centers had set up radio schools. By 1985 there were 138 such schools, and some 3,500 children were attending school on a regular basis. All courses — mathematics, natural and social sciences, physical education, health and nutrition, aesthetics and practical work — were taught using a bilingual-bicultural curriculum. Students and teachers were provided with workbooks. Lessons consisted of



both radio and teacher-led activities. After completion of radio broadcasts, students were given supplementary workbook assignments to reinforce what they had studied.

A summer program was set up to train and certify Shuar community members as teachers. Their role was to help students interpret what the master teacher said on the radio, correct students' homework and monitor students' progress. Motivation was high, and the community became very involved in the education of its children.

There have been problems, such as the lack of uniformity in instruction on the part of teachers. Master teachers who

formulate the curriculum have also been reluctant to take suggestions from the classroom teachers. The project has suffered from inflation, a lack of financial support from the Ministry of Education and an over-dependence on foreign assistance.

But overall *Radio Educacion* has been a success. The use of radio means that children can now attend school near their homes. Instruction in the Shuar language has permitted communities to become more involved in schools. Instruction in Spanish better equips children to make their way in mainstream Ecuadorian society.

## Tibetan Oral History Project

The Intercultural Oral History Project's (ICOHP) Tibetan Component is an independent educational program aimed at helping children of Tibetan exiles practice English through learning more about Tibetan history and culture.

The preservation of Tibetan culture became particularly important after the Chinese occupation of Tibet in the late 1940s, when many Tibetans left their country to live mainly in India (where they formed a government-in-exile in 1959) and Nepal. One of the exile government's priorities was to organize an education system to retain the people's ethnic and cultural identity. The resultant curriculum reflected an attempt to balance Tibetan studies with subjects required by their new surroundings.

In Nepal and India this balance was difficult as the national curriculum left little room for integration of minority studies. Elders voiced concern about their children's preferences for watching movies over learning traditional dances and listening to old stories. The children were struggling to define their Tibetan identity as refugees in another country.

The Project addressed this situation by establishing a pilot education project in two Tibetan settlements in Nepal. The project involved children practicing English (as a foreign language) and Tibetan through collecting, recording and illustrating elders' oral histories. This pilot project, involving 55 Class Four and Five (middle and high-school age) students, was successfully implemented over a three-month period. For the first two months students worked in Tibetan, Nepali and English to write autobiographies and biographies, retell Tibetan folktales, conduct home interviews and create a newsletter. Each school produced a compilation of this work in Tibetan and English, which functioned as both historical record and culturally relevant educational material.

Community members were enthusiastic about the program. Educators were pleased with the children's improvement in English and Tibetan as well as with the general educational value of the program. Parents enjoyed the work and noted that children asked questions about Tibet at home. Elders were pleased to share their knowledge with a younger generation and have it valued. Students asked to continue work on their projects. Educators, community organizers and exile government administrators requested that the program be continued and extended to other schools.

In the project's second phase the program was extended to new sites. Project coordinators wrote a teachers guide to introduce new teachers to the program. They also worked with school administration, teachers and community members to adapt the program to the specific needs and interests of specific communities.

In the project's developmental stage, several United States-based organizations served as resources/advisors and developed the project in collaboration with Tibetan leaders, educators and community members. The project is now run entirely by Tibetans. The program has proven flexible enough to be used as an activity club or part of a



class (language, history, etc.), according to the structure of the specific school, and was designed to be sustainable and independent, using only material and people already in place in local communities and schools.

### Mayan Writers' Cooperative

In Mexico, as in Ecuador, the native population and culture suffered under both Spanish colonization and Mexico's modern development. Sna Jtz'ibajom, the House of the Writer, a Mayan Indian cultural cooperative working with the Tzotzil and Tzeltal Mayan peoples of southern Mexico, has worked for the past decade to redress this situation.

Cooperative writers have worked through local theater, writing and radio to educate the people on their cultural heritage and reinforce their Mayan identity. Cooperative writers have won prizes for their pieces, and the Cooperative's Monkey Business Theater is the only Mexican Indian theater that creates plays using its own cultural material.

One outcome of the resultant upsurge in interest in Mayan culture has been Sna Jtz'ibajom's larger educational effort, La Escuela Maya (The Mayan School), which began in February 1987. Tzotzil reading and writing classes were held for two two-hour sessions every week, the course lasting six months. Courses were taught through a manual produced by the school's direc-

tors. Each manual had 60 pages of lessons in Tzotzil, a basic Tzotzil alphabet, pronunciation guides, some Spanish translations, question and answer sheets, prayers, numbers and verb conjugations. Bimonthly in-house progress reports showed improvements for each group of students. Monthly meetings were held to evaluate the program and encourage participants to take full advantage of the course.

In three and a half years the Cooperative awarded just short of 1,000 diplomas to Tzotzil men, women and children who are now able to read and write in their mother tongue. And, for the first time in the region, Indian teachers were awarded diplomas in the state school system.

Directors of the US-based Indigenous Imagination Project have described the Mayan school as profoundly important in terms of both educating the indigenous people and preserving their cultural traditions. After a visit to the school, the directors wrote:

"Not only has this project proven the reality of achieving literacy through the original language of the learner but it has pointed out the necessity of sustaining the practices and beliefs of the original culture as well."

The school, they felt, could serve as a model for what could happen when a community, concerned with preserving its traditions, used the original language of its people as a major force in teaching the skills of reading and writing.

Like the Shuar Radio project, the project's main challenges are to become financially self-sustaining (it now relies primarily on foreign donations for support), to improve teacher-training and overall administration. ♦

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*Information on the three projects was supplied by Cultural Survival, a nonprofit organization that helps indigenous peoples and ethnic minorities design and implement programs to improve the lives of their peoples. Cultural Survival is based at 215 First Street, Cambridge, MA 02142, USA.*

# Reaching the Last Fourteen: A Basic Curriculum for Rural Families in Nepal

by John Comings

Despite efforts on the part of Nepal's Ministry of Education to increase access to primary schooling, many children remain out of school. In some cases, this is because villages lack schools. In other cases children are unwilling or unable to attend formal schools, even when there are facilities nearby. Even when children are enrolled in school, many of their parents remain illiterate.

## Targeting Both Adults and Children

Two innovative and closely-linked nonformal education (NFE) programs have reached many of these families by targeting both adults and children for basic education. Run by Nepal's Ministry of Education and a number of NGOs, the nonformal programs have shown that out-of-school children and their parents are capable and eager learners when education programs are tailored to their schedules and learning styles and when the learning needs of families are considered.

Each program provides approximately 300 hours of instruction over the course of a year with a focus on reading, writing, mathematics and life skills. The children's curriculum grew out of the adult program, and similarities in materials, teacher training and implementation have led to a synergy that makes each curriculum more successful and efficient in combination than it would be alone.

## Instructional Strategies

The adult curriculum was developed in the early 1980s

by the Ministry of Education with technical assistance from World Education (a Boston-based nonprofit organization) and financial assistance from USAID. Learning materials consist of four 96-page books (Naya Goreto 1, 2, 3, and 4). Based on Paulo Freire's keyword approach, the books introduce new words that are relevant and important to learners' lives. Drawings that depict a village situation corresponding

to the keywords are presented both in the books and on large posters used by the teacher. These keywords form the basis for learning syllables which are then recombined to form new words. The academic level of the materials approximates the first three years of formal primary school.

Participants build reading and writing skills by working with text presented in a comic book format which maintains the learners' interest. Math skills are developed sequentially, starting with counting and tallying objects and ending with addition, subtraction, multiplication and division. The lessons relate directly to participants' daily lives and provide opportunities for information and discussion about topics such as health, conservation, family planning, agriculture and girls' education. Thus, participants are introduced to development issues as part of the process of acquiring literacy and numeracy.

An important component of the instructional strategy is helping participants learn from one another. Active learning is designed into each course. Instead of simply memorizing syllables and reading in unison, pupils study in both small and large groups, engage in peer teaching, play reading and writing games, and discuss issues represented by keywords and posters. Through these activities, learners develop critical thinking and problem-solving skills.

## Expansion

As the adult program became established, a number of out-of-school children accompa-



Deborah Strong



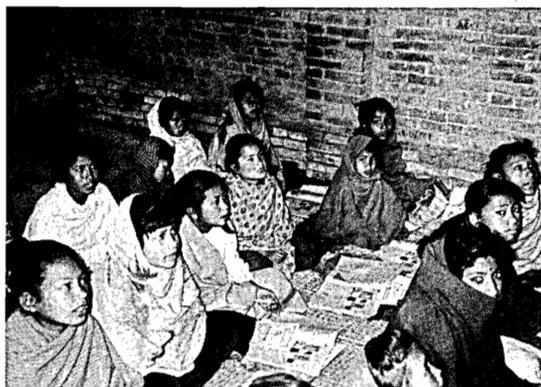
Naya Goreto textbook, Nepal

nied their parents to "school." Parents requested that a similar educational program be provided for their children, and the Ministry of Education responded. An NGO (Action Aid) adapted the adult nonformal model to serve children's needs and produced two volumes of materials (Naulo Bihana 1 and 2) of 135 pages each.

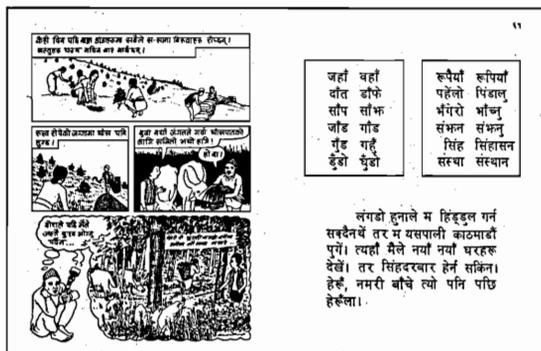
In addition to classes supported by the Ministry of Education, a number of other institutions have adopted the Ministry program for their own use. Most NGOs in Nepal, both foreign (Save the Children, Action Aid, and Foster Parents Plan, for example) and local (Nepal NFE Service Center and the Nepal Women's Association, etc.) use the Ministry materials. Donor agencies such as UNICEF, Asian Development Bank and CIDA have included the NFE program as part of their development projects.

The parallel use of the two programs has led to a number of positive outcomes. Together the two programs educate the entire family. The results are not only higher levels of basic literacy but also changes in attitudes, knowledge and behavior in areas important to family health and welfare. Since parents and children study a similar curriculum, they are able to help each other and practice together. Because the classes run at different times of day, a single teacher can teach both. This permits a higher salary for each teacher and lower overall training costs.

One particularly important aspect of the nonformal program is the emphasis on girls' education. Girls do not enroll in the formal school system as frequently as boys, nor do girls persist as long. The nonformal program attacks this problem in several ways. Teachers are typically women



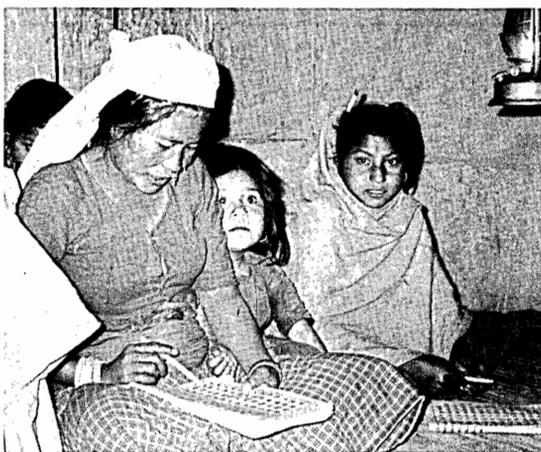
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Naya Goreto textbook, Nepal



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Deborah Strong

with 8 to 10 years of schooling. The example set by these female teachers helps motivate parents to send their daughters to school. In addition, the importance of girls' schooling is discussed directly in the adult materials, further encouraging parents to educate their daughters.

Another important component is the link between nonformal and formal systems. Primary school headmasters allow graduates of the nonformal child program to enter school above first grade. Many children from the nonformal classes move into formal schools at grade 2, 3 or 4. This brings children into the primary school system at higher grades where classes are smaller. Moreover, children coming from the nonformal program have experienced success in learning and are thus more likely to remain in school.

Evaluations of both programs by UNICEF and other organizations have found that at least 50% of participants acquire and retain literacy over a period of years. Though less than optimal, this level of efficiency compares favorably with that of the formal school system, and the nonformal programs are much cheaper. Even so, the nonformal system is expected to fade away once the formal school system is able to provide all children with a basic education. The Ministry of Education in Nepal has as its primary goal the provision of basic education for all children. The nonformal program is an acknowledgement that the formal system cannot serve all children at this time. ❖

*John Comings is Vice President of World Education. Additional information about these programs can be obtained from World Education, 210 Lincoln Street, Boston, MA 02111, USA.*

# Teacher Training and Curriculum Reform in Venezuela

by Eleonora Villegas-Reimers



Mel/Drecker

In 1980, Venezuela introduced a sweeping reform of its primary school system. Twelve years later, a study of student achievement test scores found that the reforms had little impact on student mastery of the curriculum. A World Bank study identified the failure to provide teachers with training to meet the demands of the new curriculum as a critical factor in the reform's lack of success.

## Too Few Trained Teachers to Implement the Reform

Under the curriculum reform, compulsory primary education was expanded by three years to cover grades 1 to 9 and was renamed Basic Education. Prior to the reform, primary school consisted of six years of an "integrated" curriculum, in which a single teacher taught all subjects each year to a given class of children. With reform, this system was replaced by three years of the integrated curriculum, three years of somewhat more specialized instruction (social studies, language arts, etc.), followed by three years of instruction in specific subjects (Spanish, mathematics, biology, etc.).

The system lacked enough teachers trained in the appropriate specialties to carry out the reform. To make matters worse, the teacher-training curriculum remained unchanged and failed to train teachers for the more specialized

instruction required by the curriculum. As a result, many teachers taught subjects or grades for which they had received no training. There was no systematic effort to match supply of teachers with demand.

## Poor Match between Teacher Training and Curriculum Goals

The official revised basic education curriculum stated that each teacher should know and understand the subject matter(s), the developmental level of his/her students, and the pedagogy necessary to make teaching an effective and positive factor in the learning process. Unfortunately, these objectives were incompletely manifested in the teacher training program. Teacher trainees were offered only one semester of developmental psychology, and only a few courses in teaching methods and strategies. During teaching practica, student teachers spent very little time actually teaching. Instead, they spent most of their time in schools observing and/or learning administrative procedures.

## Upgrading Requirements Made No Allowance for Existing Teachers

Prior to the reform, an individual could qualify as a primary level teacher with a high school diploma and one year of training. With the reform, teachers were required to obtain university degrees. The many practicing teachers who did not have a university teaching degree were given a certain number of years to

acquire one. However, there was no recognition of the years of teaching experience acquired by existing teachers and no special means for experienced teachers to upgrade their qualifications. They had to register in higher education institutions alongside students who had just finished secondary school.

## Poor Incentives for Potential Teachers

Teaching has traditionally been a low status, poorly paid profession in Venezuela. The requirement of a university degree for teacher certification with little increment to pay and no increase in status simply decreased the number of people who decided to enter teaching.

The Venezuelan experience makes clear that curriculum reform cannot work unless there is a match between what teachers are trained to do and what is expected of them in the classroom. The failure of curriculum reform to improve academic achievement in Venezuela's schools illustrates the importance of viewing education as a system in which all components must be considered when changing goals, inputs and processes. ♦

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*Eleonora Villegas-Reimers is Assistant Professor of Education at Wheelock College, Boston. Material for this article was taken from E Villegas-Reimers, (1992). An Assessment of Teacher Education in Venezuela, prepared for the World Bank. For further information, write to Eleonora Villegas-Reimers, Wheelock College, 2000 The Riverway, Boston, MA 02115, USA.*

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**Reform cannot work unless there is a match between what teachers are trained to do and what is expected of them in the classroom.**

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# Survival Skills and the Primary School Curriculum

by Frank Dall

Since the 1990 Education For All conference in Jomtien, Thailand, countries in Africa, Latin America, Asia and the Mideast are paying growing attention to the notion of a survival skills curriculum (SSC). Persistently high rates of school repetition and drop-out attest to the need for educators everywhere to ask fundamental questions about the relevance of what is being taught and learned in school. Is it sufficient to address the "quality" of basic education without also taking a more focussed look at the content of what is being taught?

Today, professional educators, senior managers, policy makers and teachers around the world are discussing how to make what is being learned both in and out of school more relevant to the needs of their rapidly changing societies. At a recent conference in Damascus, for example, UNICEF and educators from 15 Arab countries concluded that for schooling to have a real social impact on the region, there was a need to change children's attitudes toward conflict and peace. In a similar conference in Ecuador, a case was made for reforming basic education in line with indigenous environmental values and practices toward the land and water, community cooperation and attitudes towards work.

If we accept the need to create a curriculum which reflects a more pragmatic "survival skills" content, some key issues have to be addressed:

1. What constitutes basic survival skills? Are there common elements that can be applied across cultures? Who should take the lead in promoting survival skills curricula?
2. At what level can children begin to benefit from this kind of curriculum? What can and should be included in such a curriculum?
3. How can parents and the community participate in this education reform

process? Can illiterate parents contribute?

4. What is the cost of a survival skills curriculum and who will pay the bill?

An informed consensus seems to favor a curriculum with a core of five essential elements.

The first element would be **environmental skills**. Children need to be made aware of the effect of human populations on land, air and water. Children need to make connections between what is happening in their own national environments, their communities and their own homes.

A second element would be **health skills**, in which children would learn the connections between personal habits and health, drawing on what happens in the home. All core elements of basic general science would be taught in a relevant way, linked to everyday examples. Parental and community involvement would be an important motivating ingredient. Where possible, parents should be allowed to learn with their children.

**Family life skills** would be the third element, making clear the link between a stable family unit and the personal contribution of each family member. The building of girls' self-esteem within the home and school would be a principal task of this component. The responsibility of governments and society to support healthy families would also be emphasized.

**Peace skills** would involve extending the notion of peace into classroom

learning. Religious, ethical and other moral values from the world's great religions would be used to develop in each child a sense that s/he plays an essential role in creating global peace. Learning tolerance, patience and the need to understand different viewpoints are important steps toward peace. The concept of peace would be made con-



crete through classroom drama and carefully selected stories from children's immediate cultural environment.

The final element would be **job creation skills**. Such skills would help young people identify opportunities for self-created employment in private and informal sectors and inculcate entrepreneurial skills and positive attitudes toward work. These skills would include learning how to bring together existing resources to meet local needs and how to obtain financial help from cooperatives, credit unions and small lending banks. ❖

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*Frank Dall is Senior Advisor in Basic Education at UNICEF, 3 United Nations Plaza, New York, NY 10017, USA.*

# Using Examinations to Improve Pedagogy in Kenya

Anthony Somerset

External selection examinations are a central feature of most education systems. Such examinations are used mainly to restrict the flow of students into the more advanced levels of education, so that costs can be contained without unduly sacrificing quality. Selection examinations tend to be most strongly entrenched in countries where the national income is low, but where the social demand for education is high. In such countries, there may be as many as three selection hurdles, with the first coming at the end of the primary cycle.

## Examinations in Kenya

Educational provision in Kenya has expanded massively since Independence. Despite this, pressure on secondary and university places remains intense because higher-level educational qualifications govern access to well-paying jobs in the modern economy. Government is quite unable to meet the demand, even though more than one-fifth of the annual budget is devoted to education.

Competitive examinations are seen as the fairest and most efficient way of allocating the available places. The first examination, the Kenya Certificate of Primary Education (KCPE), comes at the end of Grade 8. Competition is severe: only about one-fifth of the candidates qualify for a place at a government-maintained secondary school.

## Examination Backwash

When the stakes involved in passing or failing a selection examination are high, the examination exerts powerful backwash effects on the work of the schools. During the run-up period (which can last two years or even longer), the character and quality of teaching and learning is determined not so much by the official curriculum as by the questions asked in recent examination papers. Candidates spend a great deal of time answering questions from these examinations, and teachers model their own tests and examinations on the same questions.

## The Kenya Examination Reform Program

The Kenya examination reform program came into being because at the time these backwash effects were almost entirely negative. Visits to primary schools showed that examination candidates were engaged almost entirely in memorization and recall. Commercially-published examination guides containing the answers to all previous questions were to be seen on teachers' and pupils' desks far more frequently than the official textbooks. In most schools, continuous prose writing was being neglected, as were activities involving observation, experimentation and problem-solving.

Given the format and content of examination papers being set at the time, this response was hardly surprising. All questions were multiple choice, so there was little incentive for teachers to develop prose writing skills. Students needed only to be able to identify the correct answer from a list of alternative options.

Except in mathematics, the questions tested little more than the candidates' ability to recall factual material. Moreover, the facts that were tested were mainly isolated fragments, the building blocks of knowledge rather than knowledge itself. In history and geography, the focus was on names, dates and places; in science, on definitions of technical terms; in English, on spelling, punctuation, grammar and syntax. The following examples are taken from a pre-reform science examination paper:

When salt is mixed with water, salt will dissolve. Water is said to be a:

- A solvent
- B solute
- C solution
- D mixture

In a flowering plant, fertilization takes place in the:

- A stigma
- B style
- C anther
- D ovary

Questions testing higher-order skills — “thinking” skills rather than “remembering” skills — were almost entirely absent from the papers. There were, for example, few questions which required students to apply remembered knowledge to new situations.

## Strategies and Goals for Examination Reform

Two general strategies were employed for the reform program. First, changes were made to the format and content of the papers, so that the examination became a stimulus to better pedagogy, rather than a barrier to it. Second, results from the examination were fed back to the schools and to other important stakeholders. Feedback was of two main kinds: incentive feedback, which consisted of lists of mean scores for schools and districts; and diagnostic feedback, in the form of an examination newsletter which identified concepts and skills causing candidates particular difficulties, diagnosed the reasons for those difficulties and suggested ways problems might be overcome.

These two strategies were directed toward five main goals, two of which pertain to the function of the examination as a selection instrument and three to its educational effects.

**Allocational goals.** It was hoped that the form and content changes would improve the **effectiveness** of the examination, so that it identified with greater accuracy the pupils most likely to benefit from secondary education. Similarly, it was hoped the changes would help improve **equity**, by reducing or if possible eliminating biases in the questions which favored some groups over others — urban pupils over rural pupils, for example; boys over girls; the better-off over the poor.

**Educational goals.** The introduction of the feedback system would, it was hoped, contribute to an **improvement in the overall quality** of primary education and

similarly to a **reduction of quality differences** among schools and districts. Both the feedback system and the content changes would, it was hoped, improve the **relevance** of primary education, both for those accepted into secondary schools and for the majority who would not continue schooling.

### Changes in the Format and Content of the Examination Papers

In planning changes, the central guiding principle was that questions should require pupils to think about what they knew and to restructure it in some way rather than simply to reproduce it in unchanged form. The main changes can be summarized as follows:

**1. Introduction of an extended-response paper.** The negative effects of using only multiple-choice items were clearly unacceptable, so the introduction of an extended-response paper was an early priority. In most years, the paper consisted of a single compulsory essay question, chosen to allow scope for the display of imagination and creativity as well as accuracy. The essays were graded by teams consisting mainly of primary teachers. These teachers were trained in the recognition of prose-writing skills before the grading exercise started, using "live" scripts. Informal evidence indicates that their own pedagogy benefitted considerably as a result. Because of financial and time constraints, it was not possible to extend free-response questioning to other subjects.

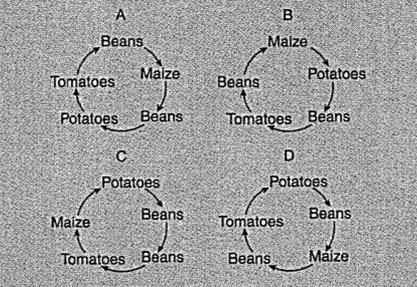
**2. Emphasis on thinking skills.** Over a period of several years, questions requiring problem solving or decision making were introduced in all subjects. In some cases, these questions could be answered through the application of existing knowledge to a new context:

Njeri is walking to school one morning. She notices her shadow is stretched out on her left-hand side. Towards which direction is Njeri walking?

- A North
- B South
- C East
- D West

In other cases, new information had to be assimilated first:

Beans add nitrogen to the soil which is needed by tomatoes, maize and potatoes. Tomatoes and potatoes are attacked by the same diseases which can live in the soil from one year to the next. Mamau planned to rotate the crops growing in his shamba (farm). Which one of the following would be the best plan to use?



**3. Knowledge-based questions.** Despite the emphasis on thinking skills, a substantial proportion of the questions in the reformed examination remained essentially knowledge-based. But three closely-related changes were made in the ways knowledge was tested. First, questions were focussed on knowledge structures rather than on specific facts. An emphasis was placed on understanding causes, reasons, consequences and general ideas. Second, a high proportion of questions were experience-based. Such questions drew on knowledge that pupils could acquire for themselves, using resources in the local environment. Finally, many questions tested knowledge that could be applied away from school in improving the quality of daily life. Particular attention was paid to knowledge which might help low-income families, in both rural and urban areas, use their limited resources more effectively.

Hadija put clay around the sides of her jiko (charcoal brazier), leaving the holes open, and let it dry. This made the jiko work much better because it:

- A made the jiko heavier
- B allowed wood to be burned in the jiko
- C reduced the loss of heat from the sides
- D increased the flow of air to the jiko

A Standard 7 class suggested the following reasons why mothers should feed their babies breast milk rather than bottled milk:

- (i) Breast milk is easier for young babies to digest.
- (ii) Babies who drink bottled milk are more likely to suffer from diarrhoea.
- (iii) Bottled milk does not contain enough water for young babies.
- (iv) It is cheaper to feed a baby with breast milk.

Which of these are CORRECT?

- A (i) and (ii) only
- B (iii) and (iv) only
- C (i) (ii) and (iv) only
- D (i) (ii) and (iii) only

### Results of Examination Reform

Initially, the better-managed districts and schools were quicker to respond to the introduction of the information feedback system, so performance gaps widened considerably. In the top-scoring districts, teachers' advisors and supervisors ran workshops to explain to teachers how they could equip their pupils to meet the new cognitive demands the examination was now making. They singled out schools with particularly poor results for special attention.

In the fourth year after the introduction of information feedback, however, there was a remarkable change. Almost without exception, the lagging districts began to respond. By the fifth year, the overall variation in performance among districts was less than it had been in year 1, as was the gap between urban and rural districts.

For the first two years of information feedback, district and school performance lists were circulated only within the Ministry of Education. The third set of results, however, were made generally available and immediately received wide publicity in the press and over the radio. Low-scoring districts and schools came under considerable scrutiny. According to press reports, public meetings were held in at least ten districts to discuss poor examination performance and the reasons for it. Almost certainly, this increased public awareness was mainly responsible for the improved results in the weakest districts.

Subsequent to the reform, Kenya adopted a new simplified educational structure. The primary cycle was extended by one year and a new primary leaving examination developed. Much broader in scope than its predecessor, this examination includes two papers in Kiswahili and a practical project. ♦

*Anthony Somerset works with the Institute of Development Studies, University of Sussex, Sussex, UK. Issues outlined here are described in: Examinations Reform: The Kenya Experience (World Bank, 1983) and "Examinations as an Instrument to Improve Pedagogy" in Stephen Heyneman and Ingemar Fägerlind, eds, University Examinations and Standardized Testing: Principles, Experience, and Policy Options (World Bank, 1988).*

# Teacher Supervision and the Implementation of Curriculum

by Robert Prouty, Thomas Eisemon and John Schwille

Recent research in one Asian and two African countries suggests that increasing principals' supervision of classroom teachers is an inexpensive way to improve the effectiveness of the implemented curriculum at both primary and secondary levels.

BRIDGES' research in Burundi highlighted the strong impact of supervision of teachers on pupil learning. Primary school students whose teachers were visited more frequently by principals demonstrated better knowledge of language, math and science and were more likely to pass secondary school entrance examinations. BRIDGES research in Thailand similarly concluded that students learn more when school principals conduct regular supervision of instruction. No increase in learning was associated with supervision carried out by external inspectors. The Burundi principals were responding to a government mandate, and many of their visits were rather perfunctory in nature. Yet even so, teacher supervision provided more positive impact, at less cost, than virtually any other factor we could find or measure.

## Teacher Supervision and Instructional Leadership

An earlier study in Zaire had suggested similar conclusions for the secondary school level, though, unlike Burundi, the Zairian principals visited teachers on their own initiative. Principals in Zaire who placed more emphasis on teacher supervision were more likely to attend to other instructional issues. There was a strong positive correlation, for instance, in the number of textbooks in the schools (local schools had control over procurement of textbooks) and the frequency of classroom visits for instructional supervision.

Similarly, in Burundi, principals who supervised classes more frequently tended to explore creative alternatives

to Ministry policies at the school level. In spite of prescriptive Ministry policies, for example, we found numerous examples of school level autonomy, where teachers had been allowed or encouraged by principals to concentrate on certain subjects, such as French or mathematics, to the detriment of other subjects such as agriculture or home economics which were deemed less critical to the school's academic mission.

We still do not know whether the principals involved were more responsive to such instructional issues because they supervised teachers more frequently, or whether they supervised teachers more frequently because they were generally more sensitive to instructional concerns. We do know that for all three countries, the frequency of supervision increased when there was a broad emphasis on instructional goals within the school.

To be effective, teacher supervision must be a school-level responsibility. Studies in developing countries have consistently found that regional and district-level inspectors are just not able to visit teachers often enough or with a consistent enough follow-up to make a measurable difference. Raudenbush et al (1991) concluded that external supervision had no effect whatever for the schools they studied in Thailand. Yet in many developing countries, external school inspectors continue to be responsible for classroom supervision.

Our research has led us to draw the following guidelines for policy makers:

1. To be effective, teacher supervision should be frequent and part of a broad emphasis on instructional goals at the school. It should be linked with other school initiatives such as demonstration teaching and inservice training of teachers.
2. The provision of instructional inputs should be linked to teacher supervi-



sion where possible. In Zaire, for example, mathematics textbooks had an impact on learning when there were frequent classroom visits by the principal.

3. Teacher supervision should be an explicit part of the principal's mandate, for which time is provided. It should be part of whatever system of reward or promotion is adopted.
4. Teacher supervision appears to be beneficial whether initiated by principals themselves or mandated by external authorities.
5. External supervision was not found to have an impact on student learning. District level personnel, it seems, should be encouraged to provide principals rather than classroom teachers with direct support. ❖

*Robert Prouty is Education Specialist in the Occidental and Africa Department of the World Bank. Thomas Eisemon is Professor of Education at McGill University, Montreal. John Schwille is Professor of Education at Michigan State University, East Lansing, Michigan.*

## References

Steven Raudenbush et al, 1991. *On-the-Job Improvements in Teacher Competence: Policy Options and their Effects on Teaching and Learning in Thailand*. Washington DC: World Bank.

# Innovators in Education

*Dr. Kowit Vorapipatana, Permanent Secretary in the Ministry of Education in Thailand, is known for his innovative work in both formal and nonformal educational curricula. Dr. Kowit first formed his philosophy of education while at the University of Utah. He further developed and implemented his ideas as Director-General of Non-formal Education, Director-General of Secondary Education, Deputy Director-General of Educational Techniques and Director-General of Secondary Education.*

*Two of Dr. Kowit's most outstanding concepts have been that of "khit pen," a practical/philosophical approach to functional literacy whose tenets are drawn directly from Buddhist thinking; and a practical approach to secondary education whose aims include easing the transition from school to workplace while transforming Thailand's considerable student population into a productive workforce.*

*Dr. Kowit discussed his ideas on the role of education and curricula with The Forum during a recent visit to the United States.*

**The Forum:** What is the aim of a good education?

**Kowit Vorapipatana:** Education is not just preparing for an examination, but developing oneself through work. One should be a productive citizen while in school. How can a person work effectively if he does not work the entire time he is at school? We, in Thailand, have tried to change the concept that school is only for studying — we feel to educate people is to make them productive while they are in school.

**F:** How have you achieved this?

**K.V.:** We developed a program whereby we reduced the length of study periods and had students use the extra time to form companies. Each company

decides on a particular project — such as poultry farming, growing vegetables, making cookies — in which the students can apply what they have learned in class. One company may have one or many projects. Students must invest their own money, or that of their families, in the companies, according to their financial capacity. They also can apply for monetary support from the government. Whatever the student companies have achieved the first year, by the second year they must improve



some aspect of their project, such as improving irrigation, marketing, breeding techniques and so on.

**F:** What have been the results?

**K.V.:** The result has been an education more pertinent to life and society. School has become part of the process of life, not just a place to prepare for work. With 11 million students in Thailand and a lot of unused land, not only have students gained self-confidence and participated in the development of the country, they have also produced a lot for their country. It is necessary for them to do this while they are young and still have all the energy and creative ideas of youth.

We also have an order from the government to teach more democracy. My argument that is you do not teach democracy by reading and memorizing but through practice. Small student-

formed companies are the answer to this. Through running their companies and dealing with other companies, they are learning democratic processes.

**F:** Have there been any setbacks to this program?

**K.V.:** Certainly the program has been successful, but we are swimming against the tide in changing the way people think about education. The problem is that some teachers do not know how to challenge their students.

We lack trained teachers. We need to educate teachers. Teachers also have not been allotted time to get involved in the projects.

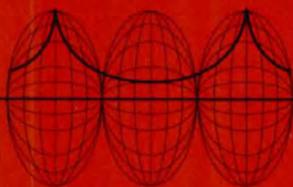
Another problem has been the financial aspect of the program. Although the government has donated money to participating schools, the teachers do not know how to be bankers. Schools have been too careless about money. So, we asked the second largest Thai bank — the Thai Farmers' Bank — for help in setting up student-manned

"banks" within the schools, with the real Bank maintaining an advisory role.

**F:** How did you come to form these ideas?

**K.V.:** I have very little formal education. But I got the opportunity to study at the University of Utah. My English was poor at the time and I only understood some 20 percent of what the lecturers were saying. I had to fill in the gaps, which gave me a lot of time to think as well as a lot to think about.

Also, I grew up in a family where everyone worked to his or her own capacity. We all participated. This way you learn to produce as part of a family, to live a whole life. So I came to believe that a place for study should not keep people from working. The question is, why should we lead two or even three different lives? ♦



**THE FORUM**  
For Advancing Basic Education and Literacy



**The Harvard Institute  
for International Development**  
One Eliot Street  
Cambridge, MA 01238 USA

Tel: 617-495-9478

Fax: 617-495-0527

Telex: 275276

Cable Address: HIID

TWX No: 7103200315

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