

Reaching the Underserved: Complementary Models of Effective Schooling



Joseph DeStefano, Audrey-marie Schuh Moore, Ph.D.,
David Balwanz, and Ash Hartwell

DECEMBER 2007



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Case Studies

Afghanistan Home-Based Schools

Afghanistan Community Schools

Bangladesh Rural Advancement Committee (BRAC) Primary Schools

Egypt Community Schools

Ghana School for Life

Guatemala PRONADE

Honduras Educadores

Mali Community Schools

Zambia Community Schools

Working Papers and Policy Briefs

Cost-Effectiveness of Complementary Approaches

How Do Complementary Models Meet the Educational Needs of Underserved Populations in Developing Countries?

Reaching the Underserved Through Complementary Models of Effective Schooling

EQUIP2: Educational Policy, Systems Development, and Management is one of three USAID-funded Leader with Associates Cooperative Agreements under the umbrella heading Educational Quality Improvement Program (EQUIP). As a Leader with Associates mechanism, EQUIP2 accommodates buy-in awards from USAID bureaus and missions to support the goal of building education quality at the national, sub-national, and cross-community levels.

FHI 360 is the lead organization for the global EQUIP2 partnership of education and development organizations, universities, and research institutions. The partnership includes fifteen major organizations and an expanding network of regional and national associates throughout the world: Aga Khan Foundation, American Institutes for Research, CARE, Center for Collaboration and the Future of Schooling, East-West Center, Education Development Center, International Rescue Committee, Joseph P. Kennedy, Jr. Foundation, Michigan State University, Mississippi Consortium for International Development, ORC Macro, Research Triangle Institute, University of Minnesota, University of Pittsburgh Institute of International Studies in Education, Women's Commission for Refugee Women and Children.

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Forward

How can we provide equitable access to a quality basic education for all children? The United States Agency for International Development (USAID) supported Educational Quality Improvement Program (EQUIP) addresses this question, through applied research and education projects in a variety of developing countries.

USAID support and research on complementary models extends back to the early 1990s, with well-known examples in Ethiopia and Mali. USAID's *A Literature Review of Community Schools in Africa* offers an overview of complementary programs operating in Africa. This review noted that the costs of community schooling programs, and the role and scope of government and other stakeholder involvement remained unclear, and therefore, required more research. Research also indicated that finance and expansion of current public systems will not be sufficient to meet the goals of Education for All (EFA).

Many countries that have undergone expansion of access to public education still face significant disparities in school enrollment and attendance rates at sub-national levels, and fail to reach a high proportion of children who are outside of the government system. Completion and student learning have also continued to be system-wide challenges that many Ministries of Education struggle to address.

To understand how these challenges might be addressed, EQUIP2 reviewed the experiences of 'complementary' models that successfully reach underserved populations. These models are often created as a partnership between communities, NGOs and the government, focus on numeracy and literacy skill development and help enroll previously excluded children into the public school system. The community-based focus of these models enables them to meet the needs of the communities the programs are designed to serve, helping to overcome some of the limitations of government schooling.

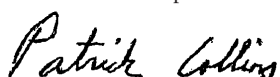
EQUIP2 identified nine case examples of complementary, community-based approaches to schooling from around the world, and developed a research methodology for analyzing the effectiveness and cost-effectiveness of those models. Data were gathered on student enrollment, completion and learning, management, governance, organization, costs and financing. A particularly noteworthy aspect of this research was a full comparison of both the costs and learning outcomes associated with students in complementary programs versus regular public schools. Research findings challenged some of the prevailing notions about what it would take to reach Education for All and suggested that the critical features of these models could offer insights to government schools to assist them in reaching the underserved populations and helping all children to complete their education and learn.

The cases in this book demonstrate that complementary education programs can provide a unique and critical role to addressing EFA goals – particularly for disadvantaged and underserved populations. Moreover, the results of complementary education program are frequently equal to or better than to the government schools in terms of improving access, completion, and learning outcomes.

EQUIP2 research suggests four features critical to the success of complementary programs:

- Locally recruited teachers and ongoing, regular supervision and training;
- School-based decision making and community-based management and governance;
- Small schools located close to the communities they serve; and
- Mother tongue instruction is used to deliver a simplified curriculum devoted to basic literacy and numeracy skills.

This book includes a chapter, which frames the research questions; a chapter outlining the research methodology; a synthesis of the case study findings; and the nine case studies. This research demonstrates that the poorest, most vulnerable children in any country can enroll in school, complete a primary education, and learn to read. It is our hope that this research will be a useful contribution to efforts to achieve Education for All.



Patrick Collins
USAID Education Officer
EGAT Education/USAID

Acknowledgments

This book is the result of a three-year effort to examine the cost-effectiveness and critical features of nine complementary education programs in eight countries. Central to the completion of this book has been the extensive support of organizations implementing complementary programs. Implementer sharing of program implementation and evaluation documents with our research team has helped authors in their sincere effort to share local voices and perceptions about the challenges and opportunities facing complementary models.

We would like to extend our warmest regards and sincere thanks to all who provided ideas, insights, and feedback on a variety of issues in both the individual case studies and the synthesis paper. Contributing to the ongoing dialogue on complementary education and to individual case studies are: ministry staff, including those supporting policy, financing and implementation of several of these programs; staff of international development agencies; funding and technical assistance agencies; universities; community groups; NGOs and teachers and district education staff.

The accumulated knowledge, experience and feedback from individuals representing the above organizations have been integrated into the case studies and papers that make up this book. We would like to specifically thank the following individuals and organizations.

USAID. We would like to extend our sincerest gratitude to USAID in supporting research on these complementary models. In particular, we would like to thank Patrick Collins, EQUIP2 CTO for his support and guidance over the last three years and Greg Loos for his support and for creating several key opportunities to present our work in various international venues. We deeply appreciate the contributions of Catherine Miles, Yolande Miller-Grandvaux, Seema Agarwal-Harding, and Jim Hoxeng for their intellectual and material support as part of the Complementary Education Advisory Committee; and all members of the USAID Education Sector Council for their feedback and suggestions at various stages of the research.

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It is my sincere hope that individuals and organizations working to achieve EFA will find this book of value as we strive to address the challenges and adversities faced when providing out-of-school children an opportunity to learn.



John Gillies
EQUIP2 Project Director
FHI 360

Contributors

Joseph DeStefano is a vice president of the Center for Collaboration and the Future of Schooling, an EQUIP2 partner. He is the principle investigator for the complementary education core team.

Audrey-marie Schuh Moore, Ph.D. is the Deputy Director of EQUIP2 at FHI 360 and provided both management and technical leadership to the core research team.

Ash Hartwell is an adjunct professor of International Education at the University of Massachusetts, Center for International Education. He is a Senior Education Policy Advisor, representing EDC as an EQUIP2 partner, and is a key member of the Complementary Education core team.

Jane Benbow, formerly the EQUIP1 liaison to EQUIP2 represents the American Institutes for Research and served as a member of the complementary education core team in 2003-2005. Jane is currently Chief of Party for the EQUIP1 Egypt program.

David Balwanz is a Research and Program Officer on EQUIP2 at FHI 360 and member of the complementary education core team.

Arushi Terway is a Research Officer on EQUIP2 at FHI 360 and member of the complementary education core team.

Ryan Goldman and Erik Lundgren are Communications Officers on EQUIP2 at FHI 360 and supported the editing, production, communication, and dissemination of the EQUIP2 Complementary Education publications.

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Specific contributions to particular chapters and case studies assembled in this book include:

Issues Brief - The Challenge of Achieving EFA: Quality Basic Education for Underserved Children: Authored by Ash Hartwell, Joseph DeStefano, and Jane Benbow.

Meeting EFA: Research Methodology: Authored by Audrey-marie Schuh Moore, Joseph DeStefano, David Balwanz, and Ash Hartwell.

Afghanistan Home Based Schools: Authored by Jackie Kirk and Rebecca Winthrop from the International Rescue Committee, and edited by Joseph DeStefano and Audrey-marie Schuh Moore. Contributors include the IRC Education Team in Afghanistan, including Gul Habib and Shaima Ahadi.

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BRAC Primary Schools: Authored by Colette Chabott and edited by Audrey-marie Schuh Moore.

Egypt Community Schools: Authored by Joseph DeStefano. The research draws heavily on a comprehensive study and analysis of the UNICEF community schools project done by Malak Zaalouk in *The Pedagogy of Empowerment: Community Schools as a Social Movement in Egypt*.

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Honduras Educadores: Authored by Audrey-marie Schuh Moore. Contributors included Carmen Siri (FHI 360 and former CoP in Honduras); and Ned Van Steenwyk (USAID/Honduras).

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Meeting EFA: Reaching the Underserved through Complementary Models of Effective Schooling: Authored by Joseph DeStefano, Audrey-marie Schuh Moore, David Balwanz, and Ash Hartwell.

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The Challenge of Achieving Education For All: Quality Basic Education for Underserved Children

The Question of Access

Since 1990, countries have been working toward providing access to education for all children (EFA). During that period, primary school enrollment rates have increased, and, according to UNESCO's 2002 EFA monitoring report, 50 countries have achieved EFA enrollment goals. However, the report also warns that "almost one-third of the world's population live in countries where achieving the Education for All goals will remain a dream, unless a strong concerted effort is made" (UNESCO 2002).

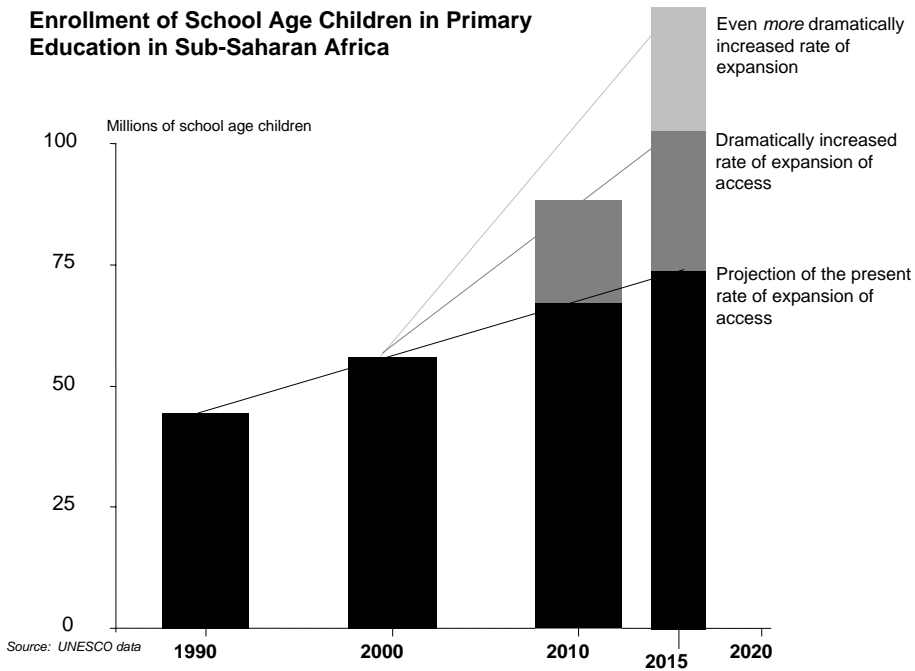
UNESCO estimates that a large percentage of the 115 million children still out of school live in the poorest and most remote regions of certain countries. This is true of sub-Saharan Africa, where 42 million children are out of school, as well as in Asia and the Pacific, North Africa, and the Middle East. The vast majority of other children who are not being reached by formal education are orphaned, working, affected by HIV/AIDS, or living in countries in crisis or transition.

Few dispute the importance of extending education to children who have no opportunity to go to school. What one can question is whether this can be achieved by relying solely on the expansion of current education management structure and delivery system.

During the 1990s, following the first World Conference on Education For All, there was a concerted focus on what developing countries needed to do to have a realistic shot at achieving universal primary education. However, the analysis focused almost exclusively on mobilizing additional extrabudgetary resources as the means of expanding access. For example, UNESCO estimates that an extra \$5.6 billion will be needed annually just to achieve the goals of universal primary education and gender equity by 2015. This would more than double the existing total of international assistance for all education. This may not be a realistic expectation, since aid to education shrank during the sustained economic growth of the 1990s.

Instead, these questions need to be answered: What besides dollars needs to be mobilized? And in what ways do the prevailing approaches to providing quality education need to be supplemented by complementary models?

Sub-Saharan Africa illustrates the problems inherent in attempts to reach EFA goals with traditional educational approaches. In 1990, its primary school net enrollment rate (NER) was 54 percent; 44 million primary school-age children had access to school. By 2000, government education systems managed to accommodate another 12 million children. But the NER increased to only 57 percent, because of population growth. As the graph shows, if trends continue to 2010 and 11 million more children are accommodated, the NER would remain at 57 percent. Reaching an NER of 75 percent—still far below the EFA's goal—would require the accommodation of an additional 32 million children and dramatic increases for the capacities of sub-Saharan Africa's education systems. To achieve 100 percent NER in 2015, an additional 73 million children would have to be accommodated. These projections do not even touch on demands on the educational systems relating to quality and learning outcomes.



Conventional education systems and state-managed delivery systems can extend educational opportunity to a large share of children in every country. But serving all children will require extensive overhaul of policies and programs and far more public resources than are likely to be available. The challenge is to develop and scale up complementary models that have demonstrated they can effectively reach chronically underserved populations and regions.

Beyond Access: What Is Being Learned?

In many countries, primary schools experience high repetition and dropout rates, particularly in the first three grades. In the developing world, one-third of children who start school do not complete grade 5. Most dispiriting is the fact that some countries make progress in expanding universal access and attaining EFA target enrollment rates, but high repetition and dropout rates siphon off a large portion of students before they reap any lasting educational benefit. For example, in Uganda and Malawi, which both introduced policies of free and universal primary school access, less than half the children who enter grade 1 progress to grade 6.

Reaching the Underserved

National education systems in developing countries have provided primary education to the great majority of urban children and youth, but they have not been able to provide quality education to historically underserved populations and regions. In the least developed parts of the world, traditionally managed public education systems hold little promise for meeting EFA goals of providing access to quality; eliminating gender-based and other disparities; ensuring completion; and achieving relevant, measurable learning outcomes. Very few countries have seriously modeled what it would take to achieve universal schooling, and even fewer have committed themselves to difficult public policy, restructuring, governance, and mobilization tasks necessary to pursue these objectives.

The poorest people, residents of remote areas, and the most disadvantaged populations—for example, girls and members of ethnic and religious minorities—are those either denied access to schooling or provided with the lowest quality schools by state-funded education systems. It is exactly these

people and regions that need to be reached if EFA goals are going to be met. Meeting EFA goals, therefore, is not simply a matter of adequate financial resources, though that is what many national plans assert. Meeting the goals also entails political will and institutional capacity. Public education bureaucracies have not been capable of allowing children in underserved populations to acquire literacy and numeracy skills and the chance to learn material relevant to their lives and communities.

There is reason for hope. As Joe Farrell wrote, “Starting over 20 years ago, and gaining momentum over the past decade, there has been a quiet revolution in schooling in the ‘developing’ world, which is in many cases radically transforming the ‘forms’ of formal schooling as we have come to know them” (2001). Complementary models and approaches are demonstrating how to meet the challenge of reaching underserved people and places of the world:

- A well-known complementary model, BRAC in Bangladesh, has graduated 2.5 million children from its rural schools over the past 18 years. A recent evaluation of the quality of education in Bangladesh found that pupil performance in complementary schools—with BRAC as the dominant provider—was consistently superior to government and private schools, in both rural and urban settings (Chowdhury 2001).
- Escuela Nueva in Colombia, with more than 20,000 schools, serves more than half the country’s rural areas. Pupil learning outcomes are superior to those in conventional schools. The model has inspired similar schools in at least 10 other Latin American countries. One example is Guatemala’s Nueva Escuela Unitaria, with 1,300 schools reaching the indigenous population.
- More than 2,000 community schools in Zambia, many of which target HIV/AIDS orphans, now serve 25,000 children.
- Egypt’s community schools, started in 1992 in just four villages in Assiut, have spread to more than 1,000 and serve some 25,000 children.
- Community-organized schools in northern Pakistan now reach 53,000 girls in approximately 2,200 communities. They employ 3,000 young women as teachers.

What these and other promising cases have in common is that they provide alternative means of reaching underserved populations, provide unprecedented levels of access, ensure equity, and produce significant learning outcomes—that is, children who learn to read and write with fluency. These results are attained with unit costs equivalent to—and sometimes less than—the public primary school system.

These approaches have grown out of direct responses to constraints facing efforts to achieve higher rates of access, completion, equity, and performance in formal education systems, including the following:

- Centrally managed systems of teacher development and deployment contribute to shortages of teachers and high pupil-teacher ratios in certain areas of a country.
- Bureaucratic administration results in inadequate supervision and support for schools and ineffective school-community relationships.
- Instructional and other resources are inadequately allocated and distributed to schools.
- Overburdened curriculum and inadequate methods, materials, and supervision lead to little time on task and low levels of learning.

Complementary Approaches in Balochistan, Pakistan, and Northern Region, Ghana

The Balochistan Community Girls School Project and Schools for Life, in Ghana's Northern Region, are just two of many complementary approaches. Operating on impressive scales and in the most challenging circumstances, they contribute to EFA goals of access, equity, completion, and learning. Other examples are summarized in Table 1.

Balochistan: The Challenge

Balochistan, the largest but least populated and developed of Pakistan's four provinces, is the size of France but has a population of only 6.5 million. Settlements are small, scattered, and isolated. Most villages lack paved roads, telephones, or electricity. Within the province's largely nomadic and highly diverse population, many are Pathan and Baloch, and have distinctive linguistic, cultural, and social relationships. However, Urdu is the national language and medium of school instruction.

Parents who want their daughters to go to school prefer them to have female teachers. But in Pakistan there are few educated women available to teach in girls' schools, especially in rural areas. This is caused by the historic lack of educational opportunity for girls as well as the unwillingness of qualified women teachers from urban areas to move to rural ones.

The Balochistan Community Girls' School Project

Begun in 1990, the Balochistan Community Girls' School Project provides full primary school to grade 5 for girls in poor, rural villages. There are now over 2,200 such schools serving more than 53,000 girls, and they have more than doubled their enrolment in less than 10 years. Dropout rates have fallen, completion rates have risen, and the number of graduates going on to middle school increased from 8,236 in 1990 to 22,766 in 1997 (Anzar 1999).

The Balochistan schools' impressive expansion of access, completion, and learning for rural girls can be attributed to significant departures from the government's traditional approach to organizing primary education. The schools were founded and operated as a collaborative effort with the local community. After a community recruited teachers, established a school, and operated it for three months, the school gained official status and entered into a contract with the Education Department. This allowed the teachers access to training and afforded them full-time government appointments and salaries. The partnership between the Education Department and the local community was initiated and facilitated by a local NGO, which also provided regular support to the school, monitored its operations, and received assistance from a donor-financed, international NGO. Establishing and operating these schools brought about new relationships between government, NGOs, communities, and donors.

The critical factor in the success of these schools was that the government accepted locally recruited young women without full qualifications as teachers. Because they had less education and no preservice training, they received support from a mobile female teacher training program. Experienced women teachers provided regular onsite training and guidance on lesson planning, organization, and instructional materials. Among other factors, the official curriculum was revised to reflect a more balanced gender picture, new texts were developed that promoted teachers' use of child-centered methods, and schools permitted multigrade, activity-based groupings of students.

Northern Region, Ghana: The Challenge

In Ghana's Northern Region, rural areas suffer from an acute teacher shortage. Many schools are not effective, and less than half of the region's children attend school. Settlements tend to be small,

sparsely populated, and widely scattered. Also working against efforts to provide education for all are traditional beliefs that formal education alienates children from their culture. Field research indicates that about 40 percent of communities in the Sissala district are without schools. About 39 percent of children in Lawra district in the Upper West Region are out of school, only 5 percent of the population aged 11 and over have ever been to school, and about 78 percent of residents can be classified as illiterate (Casely-Hayford et al. 2003). Contributing factors include:

- Long distance between schools and children's homes;
- Chronic teacher absenteeism and lack of commitment;
- Difficulties assigning trained teachers to remote villages; and
- Minimal engagement in education by communities and local institutions.

Country/Area	Program	Services and Outcomes
Rural Colombia	Escuela Nueva	<ul style="list-style-type: none"> • 20,000 schools; 1 million pupils • High rates of completion and learning
Bangladesh	BRAC Nonformal Primary Education (NFPE)	<ul style="list-style-type: none"> • 35,000 schools; 1 million pupils • High rates of completion and learning
Balochistan	Girls' Schools	<ul style="list-style-type: none"> • 2,200 new schools; 84 percent net enrollment • Number of girls going on to junior secondary schools tripled
Ghana	Schools for Life	<ul style="list-style-type: none"> • Within 5 years, spread to 767 communities; 36,000 pupils • 95 percent complete the 9-month program; 80 percent go on to formal schools
Upper Egypt	Community Schools	<ul style="list-style-type: none"> • Serves 200 communities • 70 percent girls; 90 percent completion rate
Ethiopia	Complementary Schooling	<ul style="list-style-type: none"> • 350 sites; 30,000 pupils • High rates of access, completion, and achievement
Mali	Community Schools	<ul style="list-style-type: none"> • 1,600 schools; 50,000 pupils • 50 percent completion to grade 6; performance equivalent to government schools
Uganda	COPE	<ul style="list-style-type: none"> • 60 centers; 5,000 pupils • 3-year program brings pupils to grade 5 equivalency
Malawi	Village-Based Schools	<ul style="list-style-type: none"> • 33 schools; 11,300 pupils • Good retention and learning
Honduras	Educadores	<ul style="list-style-type: none"> • 2,800 interactive radio instruction (IRI) centers; 370,000 learners to grade 7 • 75 percent rate of success
Zambia	IRI Learning Centers	<ul style="list-style-type: none"> • 250 centers; 30,000 using IRI for grades 1–5 • 10 percent dropout rate; learning achievement satisfactory

The Schools for Life Program

Schools for Life are organized and managed by a Ghanaian NGO that works closely with communities and the government. The project is financially and technically supported by a Danish

NGO consortium. The District Education Office supports the program by assisting with training and supervision. Communities find and nominate resident volunteer facilitators, providing them with some cash, foodstuffs, or labor. Communities also set up five-member committees that manage the school and ensure the facilitator is supported.

Teachers are locally recruited volunteers with some secondary education. They are supported by the community, paid “soap money” of about \$5 per month, and receive short induction training and weekly inservice supervision and training. Classes focus on Ghanaian language literacy and numeracy and some general knowledge. School is in session for three hours a day, and manages to cover in only nine months the language and math instructional objectives for grades 1–3.

By 2003, Schools for Life were serving more than 800 communities and about 25 percent of villages in eight districts of Ghana’s Northern Region. Between 1995 and 2003, the program enrolled 50,000 pupils; 43 percent were girls. After only nine months of instruction, over 31,000 pupils—62 percent of the total—continued on to grade 3 or 4 in public schools.

Why the Models Work

While Balochistan Community Girls’ Schools and Schools for Life reflect government policy for basic education, each demonstrates that inherently more decentralized approaches permit effective schooling to be organized for underserved populations and regions. The approaches rely on local initiatives, management, and decisionmaking, and they make use of a broad array of actors. Relying on a government-managed system—one that waits for personnel, materials, and resources to be allocated and distributed from the center—cannot reach the level of effectiveness and efficiency that is achievable when there is partnership between government, nongovernmental intermediaries, community-based organizations, and other social actors.

Part of what makes these models work is their curricular alternatives: limited, more focused curricula are delivered through child-centered, activity-based approaches that are locally relevant in terms of language and content. Also important is the focus on local management and on-the-ground, ongoing support through partnerships and collaboration with local communities and civil society organizations such as local or international NGOs.

In addition to organizational and curriculum innovations, these complementary approaches identify, recruit, train, and support teachers far differently than the formal system does. In Balochistan, Ghana’s Northern Region, and all other cases cited, locally recruited teachers are drawn from an available pool. Little or no prerequisite training is expected. This essentially redefines teachers’ roles. They are not seen as experts dispensing knowledge, but as responsible young adults who facilitate children’s learning and development. Investments are made to provide them with ongoing support and help, not in preservice credentialing. In many cases, the evidence is that radically less qualified teachers—in terms of formal education and credentials—are highly effective in helping students achieve learning outcomes.

These projects also promise greater cost effectiveness than formal education systems. Data becoming available indicate that complementary models are much less expensive than government-run schools, particularly if output costs are measured. For example, Schools for Life are more than four times as cost effective as government schools in Ghana. Because Schools for Life operate for much shorter days and school years, annual recurrent unit cost data—\$31 per pupil in Schools for Life and \$39 in government-run schools—are not revelatory. It is that nine months of instruction at Schools for Life produce students who continue their schooling in the third or fourth grade. Over the last six years, 62 percent of them have done so. Government schools take three years to produce a fourth-grader,

and, in lower elementary grades, the dropout rate is 50 percent. The cost of schooling a student who has grade 3 or 4 ability is \$50 for Schools for Life, compared to \$204 for government schools.

Learning from Complementary Approaches

Comprehensive research and comparative analysis of alternative projects, programs, and approaches to providing education are only just beginning. However, it is already clear that several factors are consistently present in successful complementary approaches.

Vision and leadership: Successful programs start with a vision of providing quality and relevant educational opportunity for specific underserved groups—the rural poor, ethnic minorities, girls, urban street children, or orphans—at a cost equivalent to or less than public schools.

Local leadership plays a critical role in introducing community school programs. One or more people or organizations should be well grounded in the practice—if not the theory—of educational reform and social change. Local leadership also must be persuasive, well placed to organize political support and resources, deeply committed to children’s learning, and able to withstand disappointment and contrary pressures.

Local design and sensitivity: Successful community school programs grow from the culture and the people they serve. The programs are usually developed, organized, and managed with impoverished, small, and isolated communities without easy access to public schools, and they depend on effective, enduring partnerships between local organizations, communities, government, and development agencies. Such partnerships and adequate local knowledge usually grow out of previous community development work, whether on improved basic health and nutrition, famine and drought relief, or postconflict rehabilitation.

Innovative and effective management partnerships: Successful management relies on innovative partnerships. These can be formal agreements or professional collaborations between NGOs, communities, government, and development agencies. Sustained quality education also depends on combinations of actors who reflect the local context and build or reinforce needed social capital and infrastructure.

Clear definition of roles: Each program’s management framework reflects national regulations relating to the establishing and recognizing schools as well as historical experience. Defining roles, responsibilities, and resources requires negotiations between public authorities—ministries of education—and organizations establishing community schools. All parties need to come to an understanding about the roles, responsibilities, and resources each can provide.

Starting small: Successful community schools start with a few committed communities, then often expand to similar nearby communities. The most important resources for this expansion are people who, through field experience, have become local experts, a human resource that must be continually developed.

Managing for quality: In successful community school programs, supervisors and managers are viewed as support staff who are discovering how to enhance teachers’ roles and advance children’s learning. The radical concept of the organization serving the teacher and learner turns the notion of hierarchical power on its head. Management in support of children’s learning is at the heart of effectiveness and quality, along with commitment to a continual process of organizational learning.

Three Fundamental Principles

Three basic principles appear to underlie the demonstrated capacity of complementary models of primary schooling to contribute effectively to the EFA goals of access, equity, completion, and performance:

1. Government partners with NGOs. Complementary models are founded on a vitally important shift away from government as the manager of public education and toward a policy and institutional environment that enables government to work in partnership toward education for all with networks of actors (communities, NGOs, and donors). In almost all alternative models reviewed, civil society actors are critical intermediaries between government and local populations and help support their children's education.
2. The focus is on learning outcomes. Increased human capacity—the main objective of universal primary education—is formed when children acquire basic reading, writing, and computing skills. By focusing on the outcome of demonstrated learning or proficiency, alternative models of education evince a willingness to do whatever it takes to be successful. They use whoever is available as teachers, create systems of support as needed, and focus the curriculum, calendar, and instruction on children learning. This is a definitive break from the model that defines an education system as the centrally managed delivery of a standard set of inputs whose objective is achieving enrolment targets, rather than learning.
3. Teachers are locally recruited and trained. Initial research indicates that a key to the success of complementary models that reach and educate underserved populations is the teachers they enlist and how they develop them. In the traditional model, teachers are experts with a predetermined level of education and certification. They are centrally recruited, hired, and assigned, causing the critical bottleneck in underserved regions unable to meet EFA goals. Alternative models use locally recruited teachers with less education, and make greater investments in a system of regular support and development than in preservice education and training.

In most countries, achieving EFA means reaching regions and populations that are persistently underserved and attaining levels of equity and demonstrable learning that traditional education systems have failed to meet. This means that EFA goals cannot be met through additional financing and expansion of existing systems. It is not enough to hope they will be able to reach places and people they never have.

But alternative models are demonstrating ways to increase access, completion, and learning achievement with precisely the populations who need to be reached. For them, alternative models provide primary education with high levels of quality, relevance, and cost effectiveness.

With appropriate policies and program support, alternative systems may contribute to large-scale progress toward EFA goals. Thus, there is a need to systematically initiate, promote, support, and learn from these approaches. There is also a need to consider the implications for analysis and program design of these alternate approaches, along with their implications for national sector policies and strategies and the international EFA agenda.

Expanding through policy support: Key government and civil society stakeholders need to view complementary programs as catalysts that advance educational sector policies and reform. When community schools demonstrate on a small scale that they effectively provide learning at reasonable cost, ministry and local officials may become advocates for incorporating the approach into sectoral strategies and programs. When developed on a large-scale, alternative models demonstrate how schools can be made more appropriate to their settings and function more effectively. Their expansion also provide lessons about managing at a system level: training and supporting teachers, developing curriculum, negotiating governance and finance mechanisms for large numbers of

schools, and creating policy. These lessons hold policy implications for organizing and operating formal governmental systems and, ultimately, may influence a country's ability to realize EFA goals.

Filling a Vacuum

Opportunities for introducing and promoting complementary models are afforded where there are no schools or where educational needs of specific groups—such as girls in Balochistan or AIDS orphans—are unmet. In these cases, alternatives may simply be put on the table as rational program and policy options.

Vacuums present natural starting places for alternative approaches. Community schools in Mali were started in villages so far away from the nearest primary school that most children were unable to attend. The same was true in Upper Egypt, Northern Ghana, Ethiopia, and rural Colombia. HIV/AIDS has created another vacuum: its devastating impact on the teaching corps of some countries requires new pools of potential teachers to be identified and less reliance on individual teachers. Periods of civil unrest and economic and social crisis also create vacuums. In such cases, alternative systems may be able to restore education services and help bring about stability. The EDUCO program in El Salvador illustrates the point. Supported by NGOs, the local initiative organized and operated schools in war-torn areas during the 1980s. Following the cessation of violence, the government used the emergent infrastructure to support schooling in those parts of the country.

Alternative approaches can also be promoted in countries where high levels of wastage, low levels of learning, severe overcrowding, and chronic teacher shortages severely constrain the educational system's capacity to meet EFA goals. Alternative approaches may offer new programmatic and policy options for surmounting such seemingly intractable problems.

Educational System Reform and EFA

In some regions of some countries—such as Sikasso and Koulikoro in Mali—alternative education systems are the mainstream. In Bangladesh, BRAC serves 25 percent of rural villages and 1 million students. Escuela Nueva has 20,000 schools and serves 1 million students in rural Colombia.

Alternative approaches can become the infrastructure through which education is delivered. They are beginning to illuminate a path to education system reform, implicating a drastically different approach to policy, implementation, and resource allocation in the education sector. If more children can be reached through locally initiated schools that are supported through collaboration and partnership with NGOs, it becomes critical to focus on how to expand this system's capacity and funnel resources to NGOs well situated to develop and implement the approaches. This involves moving toward onsite training and supervision of locally recruited teachers, and away from national policies and investments in massive preservice training programs.

Alternative approaches show that motivated young adults, often with scant formal qualifications, can serve—and serve well—as teachers when provided with ongoing professional training and support. This support comes from decentralized systems that rely on local partners and nongovernmental intermediaries, providing effective ongoing services where ministry programs of inservice training and school supervision seldom succeed. On-the-ground experiences of alternative approaches also:

- Offer new perspectives on what it takes to open, operate, maintain, and sustain schools, and exhibit different ways to organize, run, and fund them;
- Demonstrate that poor communities can start, support, and manage schools, if properly assisted;

- Reveal different roles that communities, NGOs, donors, and local and national government agencies can play in schools;
- Offer different approaches to teaching and learning, moving away from traditional curricula and pedagogy, and producing better results; and
- Demonstrate that poor communities can start, support, and manage schools, if properly assisted.

The success of alternative approaches implies a decidedly innovative approach to EFA, which, from its inception, has been couched in terms of the availability of financial resources. This means that the important questions are not whether donors and developing countries are targeting enough funds to education and whether implementation capacities of education ministries are being reinforced. Instead of asking if the pool of available resources is adequate, the question is whether available resources could be spent differently to achieve better results. Instead of concentrating on building governmental capacity to expand public schools to underserved groups, the focus should be on enlisting and building the capacities of a whole range of civic actors. Partnerships and arrangements with civil society and NGOs need to be seen as critical components of EFA sector initiatives, not the creation of sector investment programs for publicly managed schools.

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Meeting EFA: Reaching the Underserved through Complementary Models of Effective Schooling

Introduction

In 1990, international donors and country governments worldwide made a commitment to provide quality education for all children, launching the Education for All movement. Sixteen years later, between 77 and 115 million children remain out of school. The challenges of meeting EFA are well documented. The rising costs of educational inputs, which increased the unit costs of conventional approaches to education, make it difficult to reach the rural poor in resource constrained environments. Teacher recruitment and retention impact the ability of Ministries of Education to staff isolated schools and the schools that do exist are often too far from communities for children to attend. The international donor community is beginning to recognize that without changing how educational opportunities are delivered in many developing countries, the goals of Education for All will not be achieved.

In 2004, the United States Agency for International Development (USAID)-funded Educational Quality Improvement Program 2 (EQUIP2) began investigating community-based schools as a mechanism for reaching the underserved populations. The team identified nine models that successfully organized schooling in regions least served by the formal education system. These complementary education approaches rely on community, non-governmental, and ministry collaboration and present a promising response to the challenge of meeting the EFA goals of universal access, completion, and learning. Complementary Education models work in support of the formal public system, offering students an alternative route to achieving the same educational outcomes as students in the government schools. The programs are designed to feed students into the government system at various entry points and are large enough to exhibit many of the same characteristics as mainstream schools. Over time, the models have increased rates of attendance, completion, and learning among the populations they serve.

This EQUIP2 Working Paper synthesizes the findings from the nine case studies of successful complementary education programs in Afghanistan, Bangladesh, Egypt, Ghana, Guatemala, Honduras, Mali, and Zambia. The research demonstrated that the programs are more cost-effective than government schools in delivering education services and that they achieve higher learning outcomes through adjustments in school size and location, curriculum and language of instruction, school management and governance arrangements, and teaching staff and instructional support services. Detailed findings from each country are available in the EQUIP2 Meeting EFA Case Studies series.

Overview of Case Studies

The nine cases analyzed by EQUIP2 offer different approaches to helping children obtain the same educational objectives as students in regular public schools. The programs are specifically designed to complement the public education system in each country, and are not meant to serve as non-formal alternatives to primary education. Also, the programs serve populations that otherwise have limited or no access to government provided schooling. The table below summarizes some of the basic information about each case.

Summary of Complementary Education Case Studies Included in the Research

	Target Population	Level of Education	Peak Enrollment
Afghanistan: Community Schools	Rural children with focus on girls	Complete primary cycle to grade six with transfer into public schools	45,513
Afghanistan: Home-Based Schools	Rural children with a focus on girls	Complete primary cycle to grade six with transfer into public schools	14,000
Bangladesh: BRAC Primary Schools	Rural children	Complete primary cycle to grade six in four years (modified to six)	1,000,000
Egypt: Community Schools	Rural children with focus on girls	Complete primary cycle to grade six	4,700
Ghana: School for Life	Rural children	Primary cycle to grade three with transfer into public schools	9,000
Guatemala: PRONADE	Rural children	Complete primary cycle to grade six	455,000
Honduras: Educatodos	Adults who had not completed primary school	Complete primary cycle to grade six in three years and complete lower secondary to grade eight	117,000
Mali: Community Schools	Rural children	Complete primary cycle to grade six	50,000
Zambia: Community Schools	Orphaned and vulnerable children	Complete basic education to grade seven	500,000

The Bangladesh Rural Advancement Committee (BRAC) primary education program in Bangladesh began in the mid-1980s and served as a model for many other community-based, NGO-supported approaches to providing primary education to rural, disadvantaged populations. In Bangladesh, Egypt, Ghana, Guatemala, and Mali, the complementary programs create, operate, and support small classes located directly in the remote villages where rural people, particularly girls, previously had almost no access to schooling. In the villages where they work, these programs help establish community-based school governance and management structures.

The two cases from Afghanistan were developed under extreme circumstances. The models for delivering education developed by CARE and the International Rescue Committee (IRC) had to deal with Afghanistan's near constant state of war, overcome a ban on female education, and work within the religious edicts governing girls' and women's behavior. Home-based schools, where students are assembled in the home of a trusted member of the community, were a response to this situation.

The Educatodos program in Honduras targets drop outs, particularly those ages 20-40, who seek an opportunity to complete their primary and secondary education. Initial access in Honduras is fairly universal, but the drop out rate is very high. Educatodos' shortened version of the primary cycle offered in community centers, work places, and churches allows older students to return to school and obtain primary completion. The program also offers lower secondary education.

In Zambia, community schools formed in part as a response to the HIV/AIDS epidemic and the fiscal crisis constraining government services during the 1990s. Communities started their own schools in the absence of a nearby public school and in order to help families and orphans unable to meet the costs associated with government schooling.

Some programs are sponsored by government, while others rely almost exclusively on outside financing. PRONADE in Guatemala is a government program that allocates resources to communities to establish and run schools. The government of Honduras paid a percentage of the cost of the Educatodos program. In Egypt, the government pays community school teacher salaries. The government in Mali paid community school teachers for a few years as part of a negotiated debt forgiveness plan. In the other cases, the government may contribute some curriculum materials for schools, or may include schools in the official system of supervision and support. In Zambia, government grants-in-aid are available to community schools, but most rely almost exclusively on community, NGO, or faith-based support. The programs in Afghanistan rely almost entirely on NGO and community input, until the schools are absorbed into the reemerging formal education system.

All of the programs rely on community support. In many cases, the communities hire and pay the teachers and manage the day-to-day operation of the school. Community financing is generated through small fees or through broader community-wide contributions to the school.

Effectiveness

Each case was examined to see how effectively it provides access for the populations it targets, how well it ensures completion of primary school for the children that do enroll, and, where data permit, whether students demonstrate levels of learning at least commensurate with those achieved in government schools.

Several programs significantly augment access to primary education in the country, especially in the remote, rural areas they target:

- CARE's community schools (COPE) account for 9 percent of the enrollment in six provinces in Afghanistan.
- BRAC provides 50 percent of the enrollment in rural areas in Bangladesh.
- Save the Children community schools doubled the enrollment in Kolondieba, Mali.
- PRONADE accounts for 15 percent of the enrollment in Guatemala.
- Community schools provide 25 percent of the total enrollment in Zambia.

The four other programs are small in scale, but have significant impact in the areas where they work or for the populations they target. In these cases, the community schools are launched in villages where there is essentially no access to education. In Ghana and Egypt, the programs work to systematically enroll all the school-age children in a village. Since its inception in 1996, the Educatodos program in Honduras has provided over 500,000 overage students a second chance at completing primary school.

Completion data are available for all the cases included in this study. In all but one case, the completion rates in the community-based schools meet or surpass those achieved on average in formal public schools.

Data on learning were harder to obtain. Some measure of learning is available for all cases, however in some, the data for complementary programs and public schools are not comparable. For BRAC, Egypt, Honduras, Mali, and Zambia, it is possible to directly compare complementary education and regular public school students' results. For the programs in Afghanistan and Ghana it is only possible to show results for complementary education students. At the time of this research, some data on student performance at the end of the primary cycle in regular public schools in Ghana were

available and provided an estimate of learning that was compared to the data from the School for Life program. No data on learning are available for Guatemala.

While serving some of the most disadvantaged families in each country, these nine community-based complementary programs are demonstrating that they can produce results comparable to or better than those obtained in regular public schools. It should be noted that the programs are not selecting the privileged or parents who have a higher intrinsic demand for education. In fact, in most cases these programs are the only schools available and tend to be located in poor areas. Take the example of community schools in Zambia. The households of community school students are poorer and less educated than those of students attending regular public schools. Less than a third of community school families live in permanent structures compared to 46 percent of public school families. Students attending rural community schools are 13 percent more likely than students in rural government schools to report never having breakfast before school. Community school families have on average less education than the families of students enrolled in government schools and community schools students are more likely to speak only a local language at home (Kenyika et al, Zambia's National Assessment Survey Report, 2005). The following table provides a summary of the effectiveness of the nine programs.

Effectiveness of Complementary Education Programs

	Access	Completion	Learning
Afghanistan: Community Schools	Provided 9% of total enrollment in six provinces in 2003. Provided 100% of national girls' total enrollment in 2001.	Complementary: 50% Public: 32%	Complementary: 94% Public: N/A
Afghanistan: Home-Based Schools	Provided only access in some areas, particularly for girls.	Complementary: 68% Public: 32%	Complementary: 99% Public: N/A
Bangladesh: BRAC Primary Schools	Provided 8% of total national enrollment. Provided up to 50% of total enrollment in rural areas.	Complementary: 94% Public: 67%	Complementary: 70% Public: 27%
Egypt: Community Schools	Provided only access in some areas, particularly for girls.	Complementary: 92% Public: 90%	Complementary: 94% Public: 73%
Ghana: School for Life	Raised enrollment rate for grades one through three in Northern Region from 69% to 83%.	Complementary: 91% Public: 59%	Complementary: 81% Public: 65%
Guatemala: PRONADE	Provided 15% of total national enrollment.	Complementary: 98% Public: 62%	Complementary: N/A Public: N/A
Honduras: Educatodos	Served approximately 30% of total out-of-school population.	Complementary: 61% Public: 68%	Complementary: 63% Public: 62%
Mali: Community Schools	Raised enrollment rate in Sikasso from 35% to 62%.	Complementary: 67% Public: 56%	Complementary: 51% Public: 43%
Zambia: Community Schools	Increased total national enrollment by 25%. Program enrollment included up to 30% orphans and vulnerable children.	Complementary: 72% Public: 72%	Complementary: 40% Public: 35%

In Afghanistan, Bangladesh, Egypt, Ghana, Guatemala, and Mali, the complementary education programs achieve completion rates that surpass those of the formal public schools in each country. In Zambia, it was not possible to disaggregate government and community schools. In Honduras,

public schools had completion rates higher than the complementary education program but one should note that this program targets young people who had already failed in standard education.

In Bangladesh, Egypt, Honduras, Mali, and Zambia, it is possible to compare learning outcomes of community and public schools using available data from a single measure. In Bangladesh a much higher percentage of BRAC students than government students meet the benchmarks for basic competencies in all subjects—70 percent compared to 27 percent. In Zambia, 40 percent of community school students meet minimum standards in reading compared to 35 percent of government school students. In Mali and Egypt, pass rates for the end of primary cycle examination for community school students are higher than for regular public school students.

Cost-Effectiveness

In each case, the EQUIP2 study applies a method for comparing the cost-effectiveness of a complementary model to the cost-effectiveness of regular public schools. The costs of access, completion and learning are calculated and evaluated with respect to the outcomes achieved. Total recurrent costs for both complementary and government schools were divided by the respective numbers of students to obtain a per-pupil cost of access. Development costs associated with the start up of a complementary education project or program are included. Capital costs for construction are excluded from both government and complementary program cost calculations. Based on unit recurrent costs, a cost per student completing a given number of years is estimated by multiplying the unit cost by the number of years and dividing by the completion rate. When measures of learning are available, the cost per learning outcome is calculated by dividing the cost per completer by the percentage of students achieving the desired outcome.

This analysis is not intended to permit any cross-country comparisons. Rather, it is meant only to indicate within each country the cost-effectiveness of both regular public and complementary education programs. What the analysis does show fairly consistently is that the complementary education models studied are effective at reaching underserved populations and are more cost-effective in terms of the amounts of completion and learning achieved for the resources spent.

The following table summarizes the recurrent annual per pupil costs, the completion rates, costs per completer, learning outcomes, and cost per learning outcome for the government and complementary programs.

In the IRC program in Afghanistan, and in Guatemala, Egypt, Bangladesh, Honduras, and Zambia, unit recurrent cost is lower in the community schools than in the regular public schools. In Ghana, Mali, and the COPE project in Afghanistan, the annual unit cost of the complementary education programs is higher than government costs, but their superior performance brings the cost per completer and per learning outcome to a level below that of government schools, except in Mali.

Completion rates are higher in the complementary programs in both cases in Afghanistan, and in Bangladesh, Egypt, Ghana, Guatemala, and Mali. In Zambia, national completion rates include public and community schools. In Honduras, public schools have higher completion rates than Educadodos schools. In all cases except Mali, the cost per completer in complementary programs are lower than the cost per completer in regular public schools.

In the case of BRAC, Ghana, and Honduras, the complementary programs are three times as cost-effective at producing completers.

Cost-Effectiveness of Complementary Education Programs vs. Public System

		Annual Per-Pupil Cost	Completion Rate	Cost Per Completer	Students Meeting Learning Outcome	Cost Per Learning Outcome
Afghanistan	Community Schools	\$38	50%	\$453	94%	\$482
	Home-Based Schools	\$18	68%	\$132	99%	\$134
	Public	\$31	32%	\$485	N/A	N/A
Bangladesh	BRAC	\$20	94%	\$84	70%	\$120
	Public	\$29	67%	\$246	27%	\$911
Egypt	Community Schools	\$114	92%	\$620	94%	\$659
	Public	\$164	90%	\$911	73%	\$1,248
Ghana	School for Life	\$39	91%	\$43	81%	\$53
	Public	\$27	59%	\$135	65%	\$1,500
Guatemala	PRONADE	\$119	98%	\$729	N/A	N/A
	Public	\$155	62%	\$1,500	N/A	N/A
Honduras	Educatodos	\$40	61%	\$197	63%	N/A
	Public	\$102	68%	\$803	62%	N/A
Mali	Community Schools	\$47	67%	\$421	51%	\$825
	Public	\$30	56%	\$322	43%	\$729
Zambia	Community Schools	\$39	72%	\$376	40%	\$939
	Public	\$67	72%	\$655	35%	\$1,873

Learning outcomes achieved in complementary education programs are greater than those achieved in the public school systems in Bangladesh, Egypt, Ghana, and Zambia. The complementary programs in Bangladesh, Egypt, Ghana, and Zambia are also more cost-effective at producing measurable learning outcomes. In Bangladesh, the measure of learning is the primary end of cycle competency exam while in Egypt and Mali, student pass rates on the primary certification examination are used. In Ghana, data are available from a minimum competency test administered to School for Life students, and those data are compared to national CRT pass rates for public schools. In Zambia, community school and public school student learning is measured by a single minimum competency exam that all students take.

The complementary education models studied are more cost-effective because they are more educationally effective than regular public schools. For the cases where data are available to show student learning for both public schools and complementary models, the models outperform the public schools on the same measure of learning—often by a lot, and always while serving significantly more disadvantaged students and doing so with less qualified teachers.

In two cases, increased cost-effectiveness also derives in part from a “short-cut” approach to the primary cycle. The School for Life in Ghana condenses three years of primary school into nine months. Educatodos in Honduras covers six years of primary school in three years. BRAC primary

schools and community schools in Zambia also began by covering the full primary cycle in less than the prescribed number of years, but later came to emulate their respective official cycles.

Lessons from Complementary Education

In each of the nine cases reviewed in this study, government, donors, and non-governmental actors have been able to work with communities to:

- Create schools that are located in the villages where families live, making it easier for children, especially girls, to enroll in school and attend regularly;
- Set up community-based management structures that are able to effectively oversee the day-to-day operations of their schools, assuring student and teacher attendance, setting the calendar and schedule, collecting contributions, and paying teachers;
- Develop a simplified and focused local-language based curriculum;
- Provide the materials and instructional strategies that support the modified curriculum and, in some cases, relate to the local/regional context and issues;
- Identify, recruit, and hire teachers from within the community;
- Support those teachers either monetarily or through in-kind contributions;
- Promote ongoing community engagement and participation in assuring the success of the school; and
- Provide regular support and ongoing training for teachers and community-based school management committees.

The ability of complementary education programs to work in the above ways has important implications for how countries work to achieve their EFA goals. In fact, these programs demonstrate that to reach underserved populations, governments need to reconsider several facets of how they organize the supply of education. Specifically, complementary education programs hold important lessons in terms of where to locate schools, how big schools should be, how schools should be managed and by whom, how to improve curriculum and instruction, and most importantly, how to ensure an adequate supply of teachers.

Location and Size of Schools

Governments tend to locate primary schools in areas that can draw from several villages to realize an enrollment of hundreds of children. The lesson from complementary models in Guatemala, Northern Ghana, Upper Egypt, Bangladesh, Zambia, Mali, and Afghanistan is that distance to school is a significant barrier to access, especially for girls. World Bank research reveals that enrollment declines considerably when the distance to school exceeds one kilometer. For example, in the mid-1990s, female enrollment in Upper Egypt's rural hamlets was estimated at 15 percent. Families complained that the distance to the nearest school was too great for their daughters. The United Nations Children's Fund (UNICEF) responded by designing a community school project to target small hamlets with at least 50 out-of-school children. Each community school enrolled a multi-age student cohort and limited class size to 30 students. Female facilitators tailored learning activities to the different levels and ages of the group and created a safe environment for girls to attend.

The complementary models in the EQUIP2 case studies have reconceived the primary school as a village-based institution. This means a smaller school, smaller class sizes, and lower student-teacher ratios of about 30 to 1. The schools are often designed to recruit and move an available cohort of school-aged children through the primary grades.

Governance and Decision Making

For years governments have struggled with how to mandate, entice, or facilitate increased community participation in public schools. Many countries require schools to have parent associations or insist that communities contribute to the construction of a government school. Rather than trying to enlist community support for an existing school, the complementary education programs reviewed in this study help communities establish their own schools.

In complementary models, local and international NGOs help communities address their own educational needs. Partner organizations lead community members through a series of exercises to set up a management committee, identify student and teacher candidates, allocate classroom space from existing buildings, and collect funds for new school construction. As a result, communities approach the process with a sense of ownership. NGOs train the school management committees to set up enrollment systems, develop a class schedule, monitor student and teacher attendance, and determine fees or collect donations for materials and teachers' salaries. Not all community-based management committees function well. However, these nine studies show that with ongoing support, communities can set up effective committees and schools.

In Mali, Save the Children and its local partners identify villages that do not have access to public schools and that express an interest in starting a community school. Village leaders designate a five-member school management committee before Save the Children starts work with that community. The committee is required to set and collect school fees, recruit teacher candidates, and enroll an equal number of boys and girls. The partner NGO then provides training for the school management committee, supports the processes of teacher and student identification, and facilitates the formal relationship between the community school and the local educational authority. The community school becomes official when it submits a Declaration of Opening to the local authorities and abides by the community school guidelines developed jointly by the NGOs and the Ministry of Education.

In Guatemala, the government relies on local education committees to organize and operate schools. A department within the Ministry of Education distributes a per-pupil allocation to each committee. According to the DP Tecnología study *Estudio Cuasi-Experimental de Resultados de PRONADE Año 2001*, PRONADE's administrative structure was one of the most important features to increasing parental involvement in school management and improving enrollment and retention.

Language of Instruction and Curriculum

Many complementary education programs make use of local language instruction and a modified version of the recognized national curriculum to improve access, completion, and learning. The programs in Ghana, Guatemala, Mali, and Zambia use local language as media of instruction. The other programs use a language spoken regionally in their countries. Use of local language necessitates, at a minimum, adaptation of curriculum and materials to that language, and makes it possible to locally recruit teachers. The programs in Ghana, Mali, and Egypt have also modified curriculum to reduce the number of subjects covered and to incorporate relevant subject matter for the local population.

In Egypt's community schools, the curriculum was modified primarily to accommodate a decidedly different view of the learning relationship between teachers and students and to enable multiage teaching. Students in a typical Upper Egypt community school classroom work most of the day on self-planned projects, either individually or in small groups. The classrooms are organized into

learning corners outfitted with various learning materials like pictures, books, puzzles, games, flashcards, cultural objects, and the children's artwork.

As mentioned above, programs in Ghana and Honduras modify the curricula to cover a portion of the primary cycle over a shorter period. School for Life in Ghana covers the equivalent of three years of primary school in nine months, and Educatodos in Honduras completes the six grades of the primary cycle in three years. In Zambia, Skills, Participation, and Access to Relevant Knowledge (SPARK) was developed as an alternative curriculum for accelerated learning, designed for students who enter school at an older age. It compresses the seven grades of basic education into four years. However, community schools moved away from the SPARK curriculum because it did not prepare students for the end of primary cycle exam and began following the national curriculum as they increasingly served primary school-age children. A similar evolution took place in Mali. As community schools became better established, parents wanted them to conform more directly to the national curriculum, for example by introducing French in the upper primary grades. Another example of curriculum modification can be found in the case of the home-based schools supported by the International Rescue Committee in Afghanistan. Many Afghan teachers and students have experienced violent conflict. All are now living with the social, economic, and political uncertainties of the transition to peace. In response, IRC-sponsored home-based schools go beyond helping children to read and write by providing safe environments conducive to developing peaceful relationships. The home-based school curriculum relies on methods and activities specifically designed to foster well-being and comfort.

In Mali, Bangladesh, and Zambia, community-based schools were launched as non-formal alternatives to regular public schools that children would attend for a few years solely to acquire basic literacy. However, over time the complementary programs evolve to become more like regular schools—in terms of the curriculum followed and in terms of their preparation of students for further years of education.

Teachers, Teacher Training, and Support

The biggest obstacle faced by governments in trying to achieve EFA is an inadequate supply of teachers. Governments are not able to produce sufficient numbers of qualified teachers, assign them to the remote areas where they are needed, and meet the higher wage bill implied by a dramatic expansion of the teaching force. Complementary education models have overcome this bottleneck by taking a decidedly different approach to teacher supply.

All of the complementary education programs in this study rely on the premise that individuals capable of teaching primary school reside in or near each village. Those individuals need initial training and regular support to be pedagogically effective. However, they:

- Live where the schools are and therefore do not need to be enticed to accept a posting to a remote area;
- Know the children and families and are trusted members of the community;
- Are hired by the community and therefore directly answerable to people with whom they have pre-existing relationships;
- Often recognize their limitations and are more receptive to the training and support offered by the complementary education programs; and
- Are often initially willing to work for much less compensation and in many cases are volunteers.

The complementary education programs in this study all work with less qualified, locally recruited teachers. The following table shows the average level of education, the nature of employment, and the official status of teachers in each of the nine cases.

Since these programs all rely on less formally educated and minimally compensated teachers, they also make use of regular training and support. In principle, government systems of education provide ongoing training, supervision, and support for teachers. However, regional or district education support personnel rarely, if ever, get out to visit all the schools in their jurisdictions, especially those in the most remote parts of the country. In the 2006

study “Synthesis Report: Local Studies on the Quality of Primary Education in Four Countries” conducted in East African countries, Heneveld, Nidde, Rajonhson, and Swati found that school supervision and support were infrequent, lacked any meaningful follow up, were unfocused and confused several purposes, and were not visibly associated with improving school outcomes. In contrast, complementary education programs included in this study ensured that all teachers:

- Receive an initial training, usually of a few weeks duration, prior to the start of school;
- Are visited regularly, in many cases weekly, by field staff or by a more senior teacher;
- Participate in meetings with other teachers to reflect on their practice; and
- Are enrolled in follow-up training during the year and/or at the end of the school year.

Complementary Education Program Teachers

	Level of Education	Nature of Employment	Official Status
Afghanistan: Community Schools	Grade 12	Paid by community	No
<i>Afghanistan: Home-Based Schools</i>	<i>Some secondary</i>	<i>Paid by community</i>	<i>No</i>
Bangladesh: BRAC Primary Schools	Some secondary	Paid by community	No
<i>Egypt: Community Schools</i>	<i>Some secondary</i>	<i>Paid by government</i>	<i>Yes</i>
Ghana: School for Life	Elementary or some secondary	Volunteer with small NGO stipend or community donations	No
<i>Guatemala: PRONADE</i>	<i>Licensed primary or pre-primary</i>	<i>Paid by Ministry of Education</i>	<i>Yes</i>
Honduras: Educatodos	Some secondary – usually Educatodos graduate	Volunteer with small government stipend	No
<i>Mali: Community Schools</i>	<i>Elementary or some secondary</i>	<i>Paid by community – previously paid by government</i>	<i>No</i>
Zambia: Community Schools	Some secondary	Volunteer with small NGO or community donation	No

What complementary programs lack in resources for compensating teachers, they make up for in resources devoted to providing an extensive on-the-ground network of teacher and school support and supervision. In Egypt, Ghana, Mali, and both programs in Afghanistan, schools are visited at least once per month by teacher support staff who observe instruction and provide immediate, on-the-spot feedback and professional development. In Bangladesh, BRAC program officers visit schools as frequently as twice a week.

Policy and Education System Implications

Not all complementary education programs are successful. Even among those that achieve some success, not all schools are uniform in quality. However, the cases included in this paper and other models in Colombia, Pakistan, Ethiopia, and Uganda are worth examining because they identify some important lessons for establishing effective schools for underserved populations. In particular, this research addresses several important questions:

- What factors appear to contribute most to the effectiveness of community-based schools?
- How can public sector plans for achieving EFA take into account the lessons from complementary approaches?
- What are the long-term implications of community-based approaches to organizing and funding primary schools?

What factors contribute most to community-based schools' effectiveness?

As discussed earlier, several factors clearly make it possible for these complementary education programs to work effectively at delivering education to underserved populations. In sum, those factors depend on an inherently decentralized approach that changes some of the basic ways in which schools are organized and managed.

Complementary programs work with communities to set up schools that are smaller in scale than traditional public schools and are located in the villages where children live. Placing a school in a village makes it easier for students to attend, especially girls. Because the school is set up through a partnership with the community, community members take more active roles in assuring student and teacher attendance. Regular attendance is part of what improves learning and increased persistence in school. For example, PRONADE schools in Guatemala average 180 days of class per year compared to 125 days in regular public schools. Daily student attendance rates in School for Life in Ghana are above 90 percent, while surveys done by USAID/Ghana in 2002 indicate daily attendance of approximately 75 percent in regular public schools.

Higher attendance rates only lead to better outcomes if instruction is occurring during the time students are in school. Field reports from School for Life indicate a very high proportion of total class time is utilized for teacher/learner interaction. Lesson designs focus entirely on building literacy and numeracy skills. In contrast, Winkler reported that teacher attendance and time on task in Ghanaian public schools is very low and a serious problem in Public Expenditure Tracking in Education. The study found that less than 75 percent of public school staff were typically at school on any given day and that only about 30 percent of the total school timetable was used for building language and numeracy skills. Winkler reported teacher absentee rates in public schools as high as 27 percent in Uganda, 25 percent in India, 19 percent in Indonesia, and 17 percent in Zambia.

Teachers with adequate training and support use class time effectively. The most counterintuitive lesson of the complementary education models is that locally recruited teachers with less education can become more effective learning facilitators than fully trained and certified public school teachers. Putting under-qualified instructors in front of children will not lead to learning unless those individuals are adequately and frequently supported. All the programs studied made use of

networks of well-trained teacher support personnel to visit schools at least once a month, and usually more frequently when a teacher is first employed. Teachers are given initial training and additional intensive training during their first year and for several years thereafter. In Egypt, mentoring relationships and networks are also set up between experienced and new community school teachers.

Like the locally recruited teachers, communities can effectively manage schools when they are adequately and frequently supported. Here again the NGOs who manage complementary programs make use of their networks of on-the-ground staff to provide initial and ongoing training and support to school management committees. Communities are not expected to figure everything out on their own. Well tested models for community mobilization and training are instrumental in generating the necessary engagement and setting up effective local management structures. The experience and expertise of NGOs and grassroots organizations in this kind of work is a critical component of all of the complementary programs included in this study.

The prominence of the community's role in setting up and running a school and the reliance on a broad network of support resources that can frequently reach each school and community imply an inherently decentralized approach to providing education. A lesson from these programs is that reaching underserved populations with effective education is going to take genuine decentralization, not just the movement of administrative functions to lower levels of the education system. Genuine local control and structured approaches to local decision making are part of what enable community-based schools to be effective.

What can the public sector learn from complementary approaches to EFA?

In addition to supporting the kind of inherently decentralized approaches to primary education mentioned above, governments can proactively work with complementary education programs. The public sector can take advantage of complementary approaches' success in four ways:

- Provide resources and support for complementary programs.
- Directly apply lessons from complementary approaches to more effectively reach underserved areas and populations.
- Seek partnerships with and support NGOs implementing complementary education programs.
- Use complementary models for decentralized management because they are better able to address systems changes.

The table on the following page summarizes how the complementary education programs in this paper collaborate with their governments. The table indicates the types of direct support different programs may receive from the government in their respective settings.

Guatemala provides an example of a government initiated complementary education program. After piloting a project for increasing access in remote areas, the government passed a law that institutionalized its complementary approach within the Ministry of Education. The government granted legal status to community-based education committees, defined criteria for establishing schools, established a ministerial department to oversee the allocation of funds and support for community-based schools, and developed mechanisms for contracting with NGOs for technical assistance and support services. The government established a fiscal trust to assure all PRONADE funding, including 90 percent from federal resources.

Egypt is an example where the government both provided direct support to a complementary education program and worked to apply the lessons learned from the project on a broader scale in the public sector. The government worked in partnership with UNICEF from the beginning of the community school program. The ministry of education demonstrated its support by agreeing to pay the salaries of community school teachers, provide school books and teacher guides, contribute

to the development of curriculum and teacher training programs, and assure school feeding at community schools.

Collaboration with and Support from Government

	Collaboration with Government	Government Support
Afghanistan: Community Schools	<ul style="list-style-type: none"> Students officially recognized and able to transfer to public schools Use Ministry of Education curriculum Facilitates capacity building activities for Ministry of Education staff and teachers 	<ul style="list-style-type: none"> Community schools being progressively converted to official public schools while program continues to open new schools in remote areas
Afghanistan: Home-Based Schools	<ul style="list-style-type: none"> Students officially recognized and able to transfer to public schools Use Ministry of Education curriculum 	<ul style="list-style-type: none"> Home-based schools being progressively converted to official public schools
Bangladesh: BRAC Primary Schools	<ul style="list-style-type: none"> Students officially recognized and able to transfer to public schools 	<ul style="list-style-type: none"> Coordination unit created to improve relations between BRAC and government
Egypt: Community Schools	<ul style="list-style-type: none"> Program designed jointly Curriculum developed with government institutions Students officially recognized and able to transfer to public schools 	<ul style="list-style-type: none"> Pays teacher salaries Provides books and materials Applies community school lessons to other programs and projects
Ghana: School for Life	<ul style="list-style-type: none"> Students officially recognized and able to transfer to public schools 	<ul style="list-style-type: none"> Provides student testing Provides access to distance learning for locally recruited teachers
Guatemala: PRONADE	<ul style="list-style-type: none"> Initiated by government as formal system to partner with communities and NGOs 	<ul style="list-style-type: none"> Pays 90% of costs through government-established trust Law establishes school committees as formal entities and defines relationship between Ministry offices, communities, and NGOs
Honduras: Educatodos	<ul style="list-style-type: none"> Program developed with government Students officially recognized and able to transfer to public schools 	<ul style="list-style-type: none"> Government pays a portion of program costs
Mali: Community Schools	<ul style="list-style-type: none"> Local education authorities provide some oversight and support Students officially recognized and able to transfer to public schools 	<ul style="list-style-type: none"> Government promotes community schools Salaries paid during a short period as part of a debt-forgiveness program
Zambia: Community Schools	<ul style="list-style-type: none"> Students officially recognized and able to transfer to regular schools Some community schools use Ministry of Education curriculum 	<ul style="list-style-type: none"> Secretariat created to oversee development of community schools Some grants-in-aid for community schools

UNICEF designed the model of community education, provided training for program staff, and ensured management and ongoing support through its partnerships with local NGOs. By agreeing to collaborate fully with the project, and by assuring from the beginning its financial and institutional contribution to the program, the Egyptian government effectively cleared space in the educational landscape for this experiment in community-based schooling. The success of the community school initiative in turn triggered and facilitated an informed education sector dialogue during the last decade in Egypt. Lessons learned have not only included how to effectively provide education to physically remote children (especially girls), but also how to engage students, teachers, and communities in ongoing, active learning and democratic decision-making.

In *The Pedagogy of Empowerment: Community Schools as a Social Movement in Egypt*, Zaalouk described the complementary education program in Egypt as a “seed bed” for reform, rather than a “scaleable” operation. This meant that the emphasis from the beginning was on learning what worked and then setting up the means to apply it in other initiatives and efforts as a way to expand the impact, rather than the spread of the project itself.

In Ghana, the national government has issued directives to districts to cooperate with providers of complementary education. As a result, district directors of education and circuit supervisors work with the complementary education providers to locate community-based schools, train and supervise voluntary teachers, and assess student learning. The district education office conducts an assessment of all pupils at the end of the School for Life program. Pupils who complete the complementary education program, and who pass the end of program examination, are admitted into grade four of regular public schools. A key policy initiative included in the government’s education sector plan is to support volunteer teacher programs in rural areas with an emphasis on local recruitment, especially of female teachers. For example, the government grants volunteer teachers in complementary education programs access to distance learning that can lead to formal certification. With donor support, the ministry is also developing and implementing a program of training modules that leads to certification for volunteer teachers, and that affords them the option to apply for positions within the teacher service. The favorable policy environment for complementary education in Ghana has prompted several NGOs to apply the School for Life model in other parts of Northern Ghana.

What are the long-term implications of community-based approaches?

Governments can build on the work of complementary education programs in the ways described above. However, they also need to take into account several longer-term issues when considering how best to promote, support, sustain, or draw lessons from complementary education programs.

While the complementary education programs included in this study exhibit educational outcomes that meet or exceed those obtained in regular public schools in each of their respective countries, none of the programs would be helpful as examples of educational excellence. These programs are designed to assure a minimum standard of quality to populations who are otherwise poorly served or not served at all. A longer-term consideration has to be how the quality of these schools can be improved over time. What investments will best improve the quality of community-based schooling without inadvertently undermining the very factors that contribute to their success in the first place? For example, additional training and support for locally recruited teachers cannot sever their connections to the communities; that is part of what enables those teachers to be successful. Also, introduction of the additional resources from which most rural schools could benefit cannot lead to a dissolution of local control.

At some point, programs that rely on community contributions and/or voluntary efforts to assure provision of basic education cannot exist alongside regular government schools that are supported through the ongoing allocation of public resources. If one set of students and families receives education that is publicly funded, while another set (usually the already least favored and most underserved) must rely on its own resources to obtain education, then the system is dualistic and inherently inequitable. The objective of targeting underserved populations is to promote greater equity in access to and success in education. If that targeting requires those populations to make financial contributions that other more favored groups are not asked to make, then the equity objective is in fact subverted. Therefore, governments must devise methods through which public resources can be made available to complementary education programs.

How resources get transferred to complementary education programs matters as much as their presence. For example, the Ugandan government has financed some complementary education centers, paying teacher salaries and providing instructional materials. However, it has been noted that once the government takes over the payment of salaries, the elements that make the alternative schools work well—local teachers selected by the community, shorter school days, regular supervision, small class sizes, community oversight—tend to be replaced by more formal procedures typical of government-run schools. The government cannot take over the decision-making best left to community-based school management committees simply because resources are now being transferred from the state to the local level. In fact, mechanisms such as block grants or grants-in-aid may be most effective for funneling resources to community schools without usurping local decision-making because they imply the local decision-makers are given the resources without specific dictates about how the resources can or cannot be used. Clearly, the Guatemala case holds many lessons for how government can set up mechanisms to allocate funds directly to communities to run schools.

Furthermore, when governments get more formally involved in supporting complementary education efforts, the public system cannot always assume the institutional responsibilities usually handled by NGOs. Most education systems do not demonstrate the capacities required to mobilize and support communities in forming school management committees and to regularly support those communities and the teachers they select. Part of what enables the complementary education programs in this study to succeed are the capabilities that the non-governmental organizations bring to the table. One cannot assume that government structures have or can develop those capabilities. Furthermore, to assemble the manpower needed to staff an on-the-ground network of community and school support services may surpass the institutional and financial capacity of the public sector. For example, in Guatemala, local NGOs were contracted by the government to provide teacher training and support services to PRONADE schools. However, when responsibility for teacher training reverted to the Ministry of Education, the amount of training decreased from 3-5 weeks per year provided by contracted NGOs to only three days per year through the ministry. NGOs may in fact be able to deploy field staff at lower costs than the public sector. At a minimum, in the cases included in this study, the NGOs demonstrated that they were able to effectively deploy the necessary networks of support personnel in ways that did not ruin the cost-effectiveness of the complementary education programs.

Conclusion

The nine complementary education programs included in this study are not aberrations. In fact, community-based models of primary schooling are a growing, world-wide phenomenon. For example, a quick review of available sources indicates that at least 25,000 community-based schools presently serve more than 3.5 million children in Sub-Saharan Africa alone. However, quality varies considerably among the variety of community-based schools. Thus, it is crucial to better understand

the characteristics of programs that are more likely to achieve quality education for underserved populations.

The case studies suggest that EFA goals cannot be realized unless education systems are better able to reach poor, rural children. Not only do students who live in remote areas have less access to school, when schooling is available to them, it is often of poor quality. Models like those analyzed in this study show how countries can better organize schooling in areas usually least served by the

formal education system. These cases also show how different approaches to school organization can ultimately lead to greater effectiveness through higher rates of attendance, completion, and learning.

The factors that most contribute to the success of the kinds of complementary programs reviewed in this study can be summarized as including:

- Smaller schools established in collaboration with communities;
- Locally recruited teachers supported through ongoing, regular supervision and training;
- School-based decision-making and community-based management and governance; and
- Simplified curriculum and increased instructional time devoted to basic literacy and numeracy.

The cases reviewed here indicate that any attempt to more broadly promote or adopt complementary programs should consider how best to assure these conditions remain. It is not enough to simply replicate the community-based schools concept. The experiences recorded in the nine models reviewed show that governments and their partners should invest the financial and institutional resources necessary to ensure that the conditions most favorable to success can be assembled and sustained. This implies drawing capacity from where it can best be found—asking government institutions to do what they do well, relying on NGO partners to do what they do best, and allowing communities to assume responsibility for what they can best manage.

The ultimate lesson from this research may be how governments can work in partnership with communities and civil society actors to improve school effectiveness through increased school autonomy, more frequent and systematic support for teachers and schools, and greater instructional time devoted to early literacy.

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Meeting EFA: Afghanistan Home-Based Schools

Introduction

Years of conflict and instability have taken a heavy toll on education in Afghanistan. While the government rebuilds its public education system, formal schools fail to reach many of the country's children. Girls remain particularly underserved as a result of the looming effects of the Taliban's sanctions against educating women.

The 2001 overthrow of the Taliban and the resulting period of post-conflict reconstruction and peace-building has led to the re-establishment of formal schooling. Large numbers of refugees who have returned to the country and many children who were denied access under the Taliban have been absorbed into an education system working to rapidly expand capacity. In 2004 alone, 1.3 million girls were enrolled in government primary schools. This is a significant accomplishment considering that the official count was zero as recently as 2001. While impressive, the increased enrollment only accounts for 40 percent of school-age Afghan girls. Moreover, attendance is often erratic and primary school completion is far from certain.

There are three primary reasons why girls' access to education remains limited in Afghanistan. First, the distance from home to school can be a significant barrier. Whereas most parents allow their sons to walk or use public transportation, daughters who live more than a very short distance from the school building are rarely allowed to attend. Second, government schools tend to be dominated by male teachers posted from outside the local community. The presence of unfamiliar or less trustworthy men often makes parents reluctant to send their daughters to school. Third, cultural beliefs tend to undervalue girls' education. Dependence on children's economic roles puts pressure on girls to stay home and marry young.

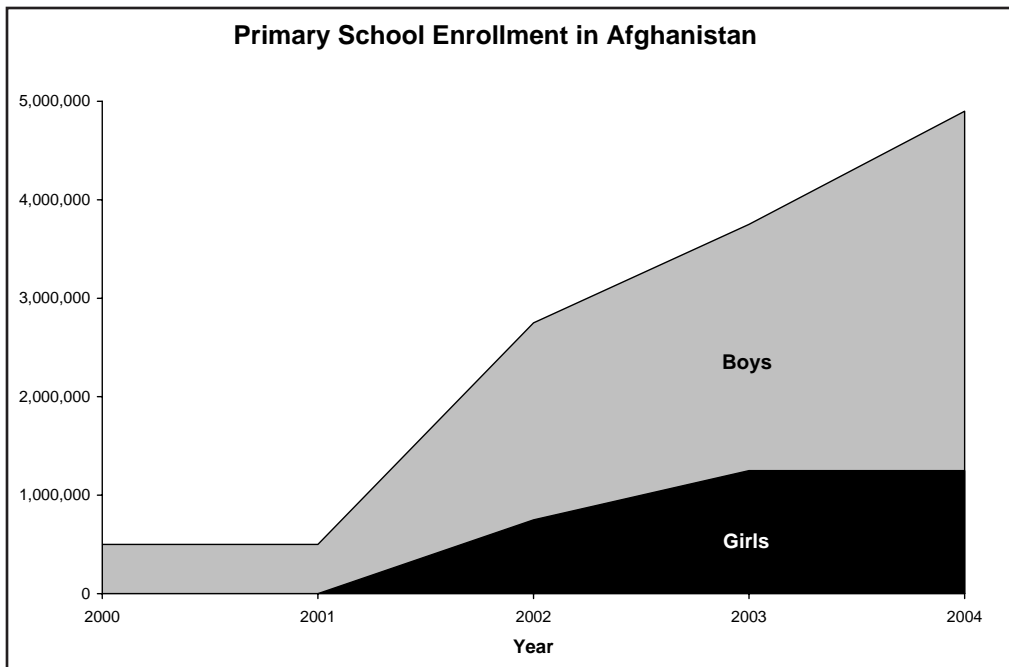
Several nongovernmental organizations (NGOs) in Afghanistan are promoting community-based or home-based schooling (HBS) as one approach to increasing education access, especially for girls. Community and home-based schools are not a new approach, previously developed as a response to the political and cultural difficulties of providing education under the Taliban and in conservative Afghan refugee camps in Pakistan. Most community schools are designed to eventually integrate into the government system once the new Ministry of Education has the capacity to adequately educate greater numbers of students. This case study examines the model and outcomes of the HBS program developed and implemented by the International Rescue Committee (IRC) in Afghanistan.

Home-Based Schooling

At the time of research, the IRC education program was operating in four provinces: Kabul, Paktia, Logar, and Nangarhar. The program has subsequently expanded to cover certain districts in Herat province, western Afghanistan. The schools—or, perhaps more accurately, the home-based classrooms—are either single-sex or mixed and are located in teachers' homes, compounds, or community spaces such as mosques. Classes last 3.25 hours a day, six days a week. Curriculum is determined by the students' level of learning—usually grade one—and the teacher and students graduate to the next level each year. If necessary, additional classes are started in subsequent years for new enrollees. Materials and teacher training and supervision are provided by the IRC while the community members commit to supporting the teachers, sometimes with in-kind compensation such as food.

HBS's success derives from its simple approach. The schools establish learning opportunities in communities using community education committees (CECs) to nominate trusted local teachers. Locally appointed teachers can provide appropriate instruction and an acceptable learning environment. Women are encouraged to become teachers, especially as they are often able to attract girls from more conservative families. In some communities, families allow their daughters to be taught by men from the community if they are known and trusted. Experience has shown that parents of older girls even allow their daughters to attend coed home-based classes if the boys in the class are from the same community. Because HBS only operates for a half day and students do not have to spend much time traveling to school, most children are still available to work and help support their families. This also allows teachers time during the day to tend to their other responsibilities.

IRC-supported schools comply with Ministry of Education policies and curricula. While HBS enrolls children who would not otherwise have access to education, the end goal is to absorb the students into government schools when the Ministry has the capacity to effectively educate more children in their local communities. However, at present, the home-based schools are still very much needed because the Ministry of Education lacks the capacity and infrastructure to educate all the students in the regions where IRC works. By framing HBS within the government's policy parameters and objectives, the IRC program helps strengthen the government education system as opposed to competing against it. Thus, these schools promote the government education system at the community level, which in turn, increases demand for public schools.



In a 2005 study, The World Bank pointed out that these kinds of interim arrangements and transitional mechanisms are the key to successful post-conflict reconstruction. Creating equitable access to services, especially to education, is a critical peace-building strategy for post-conflict governments. Ensuring that otherwise marginalized populations are served is one way to address social and economic divisions that could easily rekindle violence. It is critical to the government that rural and remote areas are reached with services sooner rather than later in the critical post-conflict period. HBS has not only contributed to the re-establishment of formal schooling, especially for

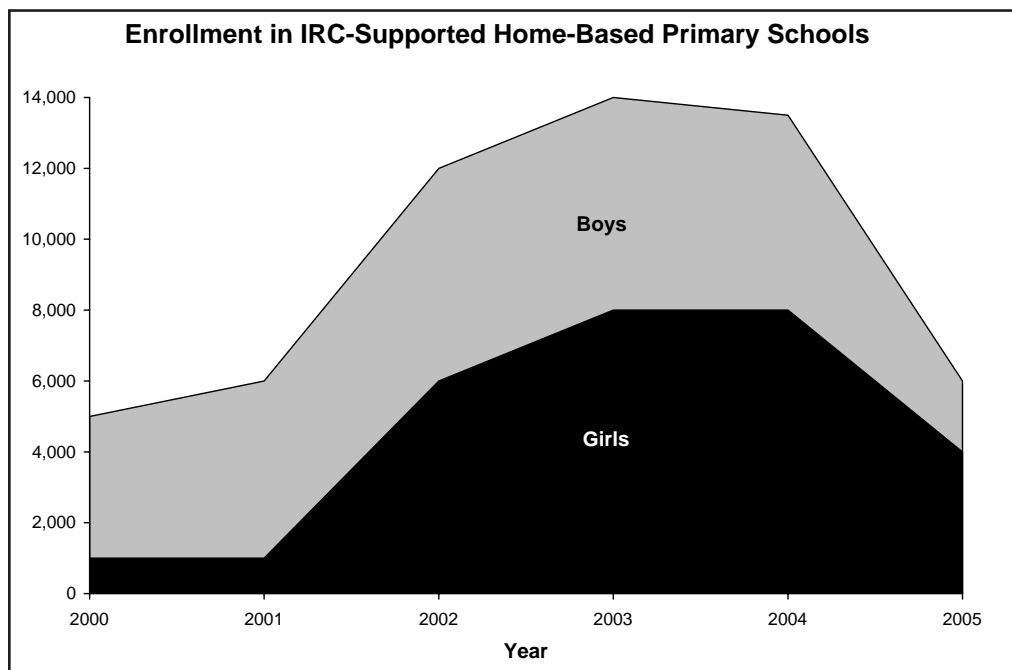
girls, but has also promoted genuine learning, fostered student well-being, and encouraged a sense of optimism within communities. All these factors are critical to creating a stable and peaceful society in a country as conflict-torn as Afghanistan.

Program Outcomes

Access

The fall of the Taliban, the subsequent installation of a new government, the massive March 2002 Ministry of Education Back to School Campaign (BSC), and the support of various domestic and international agencies and NGOs have all led to a substantial increase in primary school enrollment rates. Public school enrollment reached almost 5 million children in 2004. This was a significant achievement considering that there were only 500,000 students attending primary schools just four years earlier. Still, while enrollments continue to rise, huge portions of the population still have no access to public school.

According to a 2003 United Nations Children's Fund (UNICEF) assessment, approximately 40 percent of all primary school children were receiving education through alternative learning environments such as home-based schools, community schools, and alternative education programs. The success of IRC-supported home-based schools in providing access can be seen in the rapid growth of enrollments over a fairly short period of time. From 2000 to its peak in 2003, the program enrolled over 14,000 students, 58 percent of whom were girls. Because students have been able to transfer into public schools starting in 2004, enrollment in home-based schools has dropped, especially among boys. As a result, in 2005, home-based schools enrolled 5,800 students, 70 percent of whom were girls.



The pattern of enrollment growth and decline was consistent across all four of the provinces in which the IRC program operated. However, girls' participation varied across provinces. In Nangarhar and Logar, girls accounted for over 80 percent of enrollment, while in Paktia and Kabul, girls only made up 55 percent of enrollment.

Home-based schools are small, local initiatives that, even at their peak, operate on a relatively small scale. However, although small, they can have significant impact in rural areas and especially among girls. In Logar and Paktia in 2003, the HBS served between 4 and 6 percent of the school-age population.

	School Age Girls	Public School Girls	HBS Girls	Rate of Girls Enrolled in HBS
Tatang (Nangarhar)	32	0	30	94%
<i>Qala Bawar (Kabul)</i>	<i>105</i>	<i>0</i>	<i>85</i>	<i>81%</i>

Home-based schools' capacity to absorb demand left unmet by public schools varies. As shown in the table, one to three home-based classes can accommodate the vast majority of school-age girls in relatively small villages such as Tatang and Qala Bawar. In both these villages, girls do not attend the closest available public schools, which are 2.5 km away in Tatang and 5.5 km away in Qala Bawar. In larger villages such as Khair Abad, where the closest public school is 6 km away, seven home-based schools enrolled 214 girls, which accounts for only 21 percent of the female school-age population. Still, even though participation rates vary and additional schools are needed, HBS succeeds across the board in providing improved access to primary education.

Completion

While the Afghan government has made impressive progress at providing access to new students, it has been much less successful at increasing primary school persistence and completion rates. The 2002 European Commission Assessment Report estimates that only 37 percent of students who enroll in first grade persist to fifth grade in public schools, including 26 percent for girls and 44 percent for boys. The best available estimates, collected by the World Food Program, indicate that dropout occurs throughout the primary cycle. Dropout rates for boys are estimated to be fairly consistent at 10 to 12 percent each year. For girls, dropout rates increase from approximately 10 percent in first grade to as high as 18 to 20 percent in third grade. Dropout rates for girls return to about 10 percent after third grade. While these figures may not be entirely accurate, they are consistent with the numbers illustrating that few students reach the end of the primary cycle.

Statistics from the IRC program show that dropout is generally not an issue in home-based schools. Attendance is high, and students tend to persist with impressive levels of commitment and enthusiasm. According to IRC staff, most HBS dropouts are a result of families relocating to another village, where they may attempt to re-enroll their children as students.

Available data make it possible to estimate student survival rates only up to fourth grade in home-based schools. However, because of the deliberate attempt to promote integration, school closing and families moving from one area to another, these statistics are systematically underestimated. Using 2001 as a base year, data are available on the initial enrollment in schools in three regions. All 2001 enrollments can be assumed to be for first grade, as almost all schools starting that year began at this level. Data from 2004 show enrollments in fourth grade. These students are assumed to be surviving members of the 2001 cohort. While data are also available from 2005, too much integration has occurred to estimate general survival rates.

Grade Four Survival Rates in Afghanistan

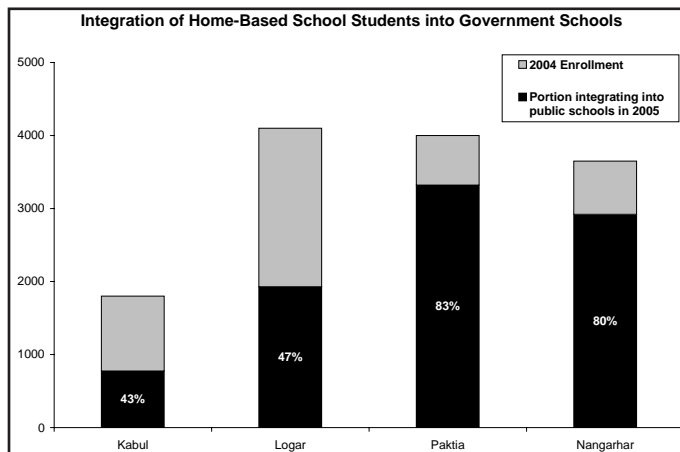
	Boys	Girls	TOTAL
Kabul	78%	77%	78%
Logar	39%	63%	50%
Paktia	25%	14%	24%
TOTAL	41%	56%	45%

Kabul and Logar have estimated survival rates above those of formal public schools, especially for girls. Paktia's survival rates are very low. However, low survival rates in the home-based schools were expected because this is the region where integration has been most successful. No data are currently available on student performance in public schools.

Integration

IRC-supported home-based schools are designed to be temporary. The schools will continue to provide education only until the Ministry of Education is able to extend access to formal public schools. Therefore, IRC staff actively seek to integrate the students and teachers from nearby home-based schools into newly constructed, reopened, or expanded public schools. In fact, provincial education officials often choose to open new public schools in areas where home-based schools are already operating. The presence of a home-based school indicates demand for and commitment to education in that community. The fact that home-based students transfer to and integrate into formal public schools is a positive outcome for the IRC program. Unfortunately, statistics showing how many students continue through to sixth grade after integration are not available.

The integration of home-based students into the formal education system has been occurring in two ways. In one scenario, the students and teachers often remain in place while the home-based school simply changes status to become an officially recognized and government-supported public school. Alternatively, home-based schools close, and the students and, when possible, the teachers, transfer to new public schools. Public schools are typically larger and can integrate more than one home-based school and admit new underserved students. IRC enthusiastically advocates for the establishment of new public schools in areas where there is a high concentration of home-based schools within close proximity of each other. In all cases, integration means that the government must take on the responsibility of paying the teachers' salaries and providing supplies to the school. IRC continues to provide training and professional support for the teachers.



Between 2004 and 2005, almost 9,000 home-based students were integrated into public schools, including 88 percent of the boys and 51 percent of the girls in IRC-supported schools. It is safe to assume, given the ways in which integration occurs, that integration is occurring at all grade levels. However, detailed data do not exist to determine at which point students are transferring from home-based schools to public schools. According to research, the greatest barrier to integration remains availability of schools and the distance from small villages to formal public schools.

The previous graph demonstrates that 80 percent or more of the students in home-based schools in Nangarhar and Paktia provinces in 2004 integrated into public schools in 2005. The percentage of integrated students is much lower in Kabul and Logar provinces.

Learning

Home-based schools follow Ministry of Education student assessment policies. All students in each grade are assessed every three months using tests developed, administered, and graded by their teachers. Home-based teachers receive training on how to design assessments in seminars provided by IRC. When possible, teacher trainers provide guidance and feedback to teachers on the drafts of tests. They may also provide teachers with a set of general example questions in each subject.

The IRC program collects and collates student grades for each province to determine overall pass rates. The data available indicate between 90 and 99 percent of students receive satisfactory grades in all provinces each year. For example, in December 2003, 98.5 percent of HBS students passed year-end exams. Passing rates are difficult to compare across different regions because exams are not standardized. However, because teachers receive the same training and practice test questions, it is safe to assume that most students who receive a passing grade in home-based schools adequately understand most grade-appropriate material.

Qualitative evaluations of student performance in home-based schools support the high pass rates students are obtaining on the in-class assessments. Teachers in home-based schools report that their students are learning and performing to a standard they would expect for their grade levels. IRC staff report that graduates from home-based schools are able to pass the entrance exams to enter higher grades in public schools. Research finds that teachers in public schools that have integrated home-based students are also impressed with the abilities of those students.

Student-teacher ratios also correlate well with HBS learning. While home-based schools vary across provinces, average student-teacher ratios are always dramatically less than in public schools.

Average Number of Students per Teacher

	Home-Based Schools	Public Schools
Kabul	36	68
<i>Logar</i>	29	51
Paktia	42	82
<i>Nangarhar</i>	18	80
TOTAL	30	72

Student Well-Being

Since many Afghan teachers and students have experienced violent conflict, IRC findings assert that primary schools should go beyond literacy and numeracy instruction to provide students with comfortable environments conducive to developing self-confidence, understanding the attitudes,

and learning the skills necessary to live peacefully. In addition to academic assessment, school evaluations should also include how effectively they protect children's well-being, foster learning opportunities, and nurture the social and emotional development of students affected by conflict.

IRC's HBS support, including teacher training, emphasizes the psychosocial well-being of students and teachers. Because student-teacher ratios are relatively low and teachers know students and families well, home-based schools are comfortable, enjoyable, and stimulating places for children. As a result, home-based schools make a significant contribution to student well-being and child protection.

Costs and Cost-Effectiveness

To measure cost and cost-effectiveness, costs associated with program development, annual operations, and the total number of students served by the program must be considered.

HBS Program Costs (2004)

	Cost in Dollars	Percentage of Total Budget
IRC staff salaries and benefits	\$92,177	36%
<i>Travel and transportation</i>	\$9,727	4%
Student materials and supplies	\$80,828	32%
<i>Teacher materials and supplies</i>	\$7,800	3%
Training and supervision	\$19,963	8%
<i>Overhead and administration</i>	\$18,945	7%
Additional expenses	\$23,976	10%
TOTAL	\$253,416	100%

The IRC program's total recurrent cost is approximately \$253,000 per year. These recurrent expenditures include staff salaries, materials and supplies, training and supervision, and travel and transportation, as well as management and overhead expenses. In addition to the annual costs, the IRC program spent approximately \$16,213 on start-up activities, which included technical assistance, materials, and research and design. IRC also spent \$22,489 on investment costs such as infrastructure and school furnishings.

The Ministry of Education recurrent budget for 2004-2005 was approximately \$154 million. Recurrent costs included curriculum and materials, teacher development, capacity building, and equipment. Total costs for the Ministry of Education budget include an additional one-time \$10.5 million for education policy and reform and \$194.6 million for education infrastructure.

The annual recurrent costs per student enrolled in the IRC-supported home-based schools in 2004 was approximately \$18, compared to \$31 in Afghan public schools.

	Recurrent Annual Budget	Recurrent Cost Per Student	Grade 5 Completion Rate	Cost per Graduate	Cost per Learning Outcome
HBS	\$230,377	\$18	68%	\$132	\$134
<i>Public Schools</i>	<i>\$154,053,000</i>	<i>\$31</i>	<i>32%</i>	<i>\$495</i>	<i>NA</i>

The cost-effectiveness of HBS can be evaluated in terms of its average cost to produce a primary school graduate. Completion rates for the home-based schools were approximately 68 percent in 2004, compared to 32 percent for public schools in 2003. Taking into account unit cost per year of enrollment, years in the primary cycle, and completion rates, the cost per graduate is estimated at \$132 for IRC-supported home-based schools and \$495 for government-funded formal public schools.

In December 2003, approximately 99 percent of home-based school students passed year-end exams. With such a high pass rate, the cost per learning outcome for a primary completer is \$134. Exam data for public school students are not available. Although the learning outcome cost for public school graduates cannot be calculated, the cost per graduate is undoubtedly much higher in government-funded schools than in home-based schools in Afghanistan.

Critical Features of Home-Based Schools

Like most community-based education programs, the IRC program uses locally recruited teachers who are supported by the community within a well-structured system of ongoing training, professional support, governance, and management. This structure effectively provides organized learning opportunities for underserved children.

School Organization and Management

The CECs required by the IRC in the start-up phase of HBS help communities organize and prioritize education. When integration occurs, CECs often form the basis of the Ministry of Education-required parent-teacher associations (PTAs). The role of both the CECs and PTAs is to work with schools to solve student education problems, promote guidance and counseling, support student associations and extracurricular activities, and promote active participation from the community. PTAs have no official authority in major decision-making processes at the school. Neither budgets nor teacher recruitment is handled at the school level.

Unlike PTAs, CECs have considerable decision-making power. When a new home-based school is formed, self-organized the CEC reaches a formal agreement with IRC stating that it will find an appropriate space for the school, identify a suitable teacher, and mobilize the community to send local children to school, especially girls. For its part, IRC agrees to provide basic classroom materials, basic teaching and learning materials for students and teachers, and regular teacher training, monitoring, and supervision. Classes start shortly after the commitments are in place. IRC trainers provide as much guidance as possible to the new teachers and ensure that training workshops are quickly organized in the district for the new teachers.

Home-based schools follow the Ministry of Education policies concerning subject areas but differ from public schools regarding school days and class hours, operating 3.25 hours per day for six days each week from March to December. This schedule allows families who depend on their children's contributions to the family business or farm freedom to send their children to school. Because the HBS schedule includes shorter holidays, longer school weeks, and shorter class days, the total number of classroom hours works out to the same as in public schools.

Additionally, home-based schools follow the assessment policies mandated by the Ministry of Education. Students are graded according to a breakdown of 80 percent from their cumulative scores on year-end exams in seven subjects on which they must score at least a passing grade of 60 percent, 10 percent from homework, and 10 percent from classroom participation. Students who fail one or two subjects are permitted to retake exams while those who fail three or more subjects must repeat the school year.

On a day-to-day basis, there is no formal process for making decisions at the individual school level. The teacher, in informal consultation with members of the CEC, may decide whether to cancel classes for the day, for example, if there has been a death in the village. Other issues, such as the relocation of a class from one place to another, are decided between the teacher and CEC. IRC staff only become involved with these types of issues when their support is requested.

Accountability for school and student performance happens at the community level. Teachers report to IRC on a regular basis about student attendance and exam performance, but IRC does not set specific performance standards for the schools. Judgments about the success of the school and the quality of the teaching and learning are made by parents and CEC members. If parents are not satisfied with the quality of education in the home-based school, they may remove their children from HBS. However, this rarely occurs because teachers know the community's cultural norms and strive to meet expectations. Local understanding and relationships between home-based schools and the communities they serve create a strong accountability mechanism for both teachers and students.

Teachers

All teachers in the IRC program are members of the local communities in which they teach. They have either volunteered to teach or have been invited by the CEC. While most teachers have at least a tenth grade education, many of them do not possess the required twelfth grade education to become public school teachers. While this suggests that home-based teachers are technically less qualified than public school teachers, more than half of all public school teachers in Afghanistan also fail to meet this requirement. In some cases, the mullah, a community religious leader, serves as the teacher and is often the most educated person in the community.

IRC promotes women teachers in home-based schools. Women-only training seminars are provided to support professional development. Some of the home-based teachers have experience as teachers of clandestine classes for girls during the Taliban regime. The vast majority, however, only started teaching after 2001.

Overall, women make up 24 percent of home-based school teachers and 17 percent of public school teachers in the provinces where IRC operates. However, these rates are not consistent across regions. Paktia has especially low rates while Kabul and Logar have considerably higher rates. Public school figures mask a large disparity of female teachers between urban and rural schools. More women teach in urban public schools, whereas all home-based schools are situated in rural villages. In 2001, at the height of the Taliban regime, there were very few women teachers in IRC-supported schools. Efforts since the fall of the Taliban have paid off, and the percentage of women teachers in home-based schools in the four provinces has increased significantly.

Percentage of Female Teachers (2004)

	Home-Based Schools	Public Schools
Kabul	26%	15%
<i>Logar</i>	43%	23%
Paktia	7%	8%
<i>Nangarhar</i>	13%	17%
TOTAL	24%	17%

Each community is responsible for supporting and compensating HBS teachers. In the program's first year, teachers were paid a small stipend of 400 Afghanis each month. For a short time after the fall of the Taliban, large amounts of donor funding allowed IRC to pay teachers a monthly incentive equivalent to \$30 during the eight-month academic year. However, since March 2003, when it became clear that home-based schools were needed over the long term, IRC ceased compensating teachers in order to focus mobilizing more sustainable community support. Not all families can afford to pay regular teacher salary fees. Therefore, informal, in-kind teacher compensation (e.g., food), is occasionally accepted. Public school teachers, on the other hand, are paid according to a pay scale defined by the Ministry of Education, ranging from the equivalent of \$53 per month to \$90 per month.

Although home-based teachers would appreciate a larger and more regular salary, other motivations like respect and status encourage them to continue teaching in the absence of a competitive salary. For many women, being a teacher in their own home is one of the few ways to be active and make positive change in their communities.

Teachers in the home-based schools are not formally recognized by the public education system. As a result, home-based school teachers' previous HBS experience is not acknowledged when they are occasionally absorbed into government-funded schools, and they must enter at the bottom rank for their grade level. If they are not a high school graduate, they are hired as a contract teacher. If they continue their own education and graduate from high school, they can then become a certified public school teacher. In some rural areas where Ministry of Education standards are not strictly enforced, home-based teachers that transfer to public schools are often more qualified than their counterparts as a result of HBS training.

Regular, high-quality training for teachers is a critical component of the HBS program. IRC provides each teacher three trainings equivalent to approximately 13 total days every year. Most of the men and women who accept home-based teaching positions have little or no experience and are products of traditional rote learning. A basic pedagogy course is a first priority for prospective teachers. The course provides instruction in planning lessons, organizing the classroom, writing exams, and grading. Individual lessons are designed to cover concrete skills in six pedagogical strategies: group work, question and answer, role playing, storytelling, brainstorming, and competition. The course emphasizes and demonstrates the importance of active learning and the full participation of every student. Teachers also receive training in the core subjects of language and math, as well as a seminar on materials development. The latter involves making a variety of charts, games, and other teacher aids to be used in the classroom. Psychosocial awareness and attention to the needs of students are also components of the IRC training package for teachers. A 14-day seminar focuses on children's emotional needs and the ways in which teachers can most effectively communicate with their students. In accordance with the cultural norms of the community, teacher training is often provided in single-sex groups—male teachers work with male trainers, and female teachers work with female trainers.

One recommendation made during the May 2004 IRC Healing Classrooms Initiative, a global action-research project focused on teacher development to support student well-being in crisis and post-crisis transition contexts, was to bring home-based school teachers together on a regular basis for professional interaction. Since many home-based teachers are often isolated and do not have regular opportunities to share ideas or concerns with colleagues, IRC initiated monthly teachers meetings in January 2005 as part of the regular school supervision program.

An intensive program of teacher supervision and support is one foundation of the IRC HBS model. Certain IRC staff are wholly responsible for teacher supervision in every province. Outside

trainings, supervisors spend most of their days in the field. They visit each teacher at least once a month and provide teachers with immediate feedback on instruction and classroom management. This regular contact with known and trusted staff provides teachers with both technical and moral

support. In accordance with cultural norms, women supervisors usually visit only women teachers, and male supervisors visit only male teachers.

IRC's supervisors have recently introduced self-evaluation to the home-based teachers. This tool permits trainers and supervisors to work with teachers in a more supportive and less judgmental manner than traditional evaluation. Self-evaluations help teachers identify their own strengths and weaknesses. This process encourages teachers to be more proactive in their own professional growth. Since the summer of 2004, IRC has recorded and maintained files on individual teachers' performance to support professional development. This is a promising innovation that still requires additional practice to ensure full understanding and effective implementation.

Oversight of teacher performance and behavior is largely left to the CECs that select teachers and found each school. IRC supervisors communicate with each school's CEC and visit more often than once a month if necessary. They also recommend additional training or provide teachers with direct advice and support.

Learning Environment, Curriculum, and Instruction

HBS learning environments are diverse; home-based classes are held in teachers' homes, outdoors under a tree, on a raised terrace area in a garden, in unenclosed structures, in a partitioned-off gateway, in the main prayer room of a mosque.

IRC provides classes with a blackboard and other basic supplies such as carpet, water container and bucket, trash can, chalk and erasers, attendance sheets, and grade books. IRC-supplied learning materials are consistent with the materials provided to public primary schools, which are primarily donated by UNICEF. Each student receives basic materials such as pens, pencils, rulers, pencil sharpeners, erasers, and slate boards. The Ministry of Education provides textbooks in the core subjects. Teachers receive a yearly package of supplies, including a ring file, paper, pens, pencils, a ruler, a pencil sharpener, erasers, and a basket. Additional supplies such as markers and flip charts are provided if available.

Home-based schools follow the government curriculum. The same subjects are studied by all students, and teachers must allocate the same number of hours per subject per week as designated by the Ministry of Education. Depending on the location, one of Afghanistan's two primary languages, Dari and Pashtu, is the official language of instruction. In areas where the population is mixed, the CEC decides the language of instruction. Second language instruction begins in both public and home-based schools in the fourth grade.

As subject time allocations are tightly fitted into a short school day, there are no additional, locally prescribed curricular elements formally included in home-based schools. However, teachers are encouraged to add lessons on landmine awareness through games and posters.

IRC teacher training and supervision encourages teachers to involve students as much as possible in classroom activities. As a result, teachers employ various child-centered approaches such as frequent group brainstorming activities. However, much of the teaching remains fairly traditional—teachers still write content on the blackboard or read from a textbook most of the time. Teachers' previous education experiences are the most significant barrier to child-centered teaching.

Teachers receive specific training in creating nurturing environments that promote students' psychosocial well-being. The social connections between teachers, students, and families within a community contribute to an environment of trust and camaraderie conducive to learning. In contrast, emerging research indicates that public school teachers use harsh and discriminatory methods, including corporal punishment. Teachers often target children from certain ethnic and linguistic groups whose families are assumed to have different political affiliations than the teacher or class majority. Public school teachers often travel a great distance to school each day and have only limited interaction with students and parents outside school hours. Public schools generally have more crowded classrooms, resulting in less individual attention for students.

Policy and Institutional Context

Taliban Regime

Afghanistan has undergone—and continues to undergo—significant transition during the time IRC has been implementing its HBS program. The first home-based schools were established in Afghanistan by staff from the IRC Pakistan/Afghanistan program in 1997. Girls' education was illegal at that time. Education, other than Koran studies, was a very low priority for boys, as well, during the Taliban regime. Public schools were quite dysfunctional, teachers were often absent, and the national curriculum excluded all science studies.

In an environment hostile to education, IRC staff had to negotiate with Taliban authorities in order to provide education for communities requesting assistance. In some districts, local Taliban officials were more sympathetic to the wishes of the communities if the local mullah supported the requests. In 2000, one district in Gardez gained permission from local Taliban authorities to host an IRC-supported class of over 120 girls in a government school building. However, the permission was granted under the assumption that the schools would be teaching religious studies.

At the national level, IRC sought a general operating protocol not with the Education Offices, but with the Hajj Ministry Offices. The Hajj Ministry was supportive of religious education and, therefore, supported IRC's home-based classes for boys and girls. The program generally avoided dealing with the more restrictive education authorities.

Even with local permission, however, IRC-supported schools were constantly in danger. Girls had to stagger the times at which they arrived at class, and classes were often forced to move location to avoid unwanted attention from the authorities. IRC protected female teachers by registering them under their husband's name. IRC staff members were questioned by the authorities on more than one occasion, and the IRC education coordinator was even detained.

Transitional Government

The transitional government formed after the fall of the Taliban in 2001 has taken tremendous strides towards re-establishing public education. Through partnerships with the international community, especially UNICEF, the massive BSC was a huge step towards full access to primary school public education. The campaign saw over 3 million students braving extreme weather to attend classes held outdoors, in tents, and in other makeshift spaces.

BSC reinvigorated the Ministry of Education and helped build capacity for managing the education system in Afghanistan. However, was happening at the same time as the Ministry of Education was preoccupied with establishing its own authority and legitimacy. Thus, the Ministry of Education was not very open to dialogue concerning complimentary models of public education. While the Ministry of Education struggled to assert its ownership of education content and processes, it lacked

the financial and technical resources to be successful, according to Spink in “Education and Politics in Afghanistan” from the September 2005 Journal of Peace Education. As a result, the Ministry of Education wanted to be the principle beneficiary of the sudden influx of donor funding instead of allowing those resources to be dispersed among various NGOs. These organizations, in the opinion of the Ministry of Education, were operating without regard for national norms and standards. The Ministry of Education was focused on the establishment of a national education system and was concerned that it lacked control over nongovernmental programs. Therefore, the Ministry of Education created various regulations that made it hard for NGOs to manage the programs they had planned to implement.

IRC had always sought collaboration with the Ministry of Education. After the Taliban’s fall, IRC revamped home-based schools to function as a transitional and complementary model rather than a parallel model of education, connecting to the re-establishment of formal education. The Ministry of Education registered and approved existing IRC home-based schools. Although IRC secured a protocol recognizing home-based schools, the overall education policy environment under the transitional government was not conducive to government-NGO collaboration.

Reconstruction and Peace Building

More recently, as Afghanistan has entered a phase of reconstruction and peace building, the Ministry of Education has been more supportive of NGOs. The Ministry of Education now acknowledges NGO activities as important contributions to education development and has sought more collaborative relationships. This is partly due to an increase in available resources, greater awareness of the effectiveness of NGO schools and education programs, and a growing acceptance of the need for collaboration and flexibility in setting education norms and standards.

This dramatic shift can be seen in the 2004 policy document entitled *Securing Afghanistan’s Future*:

The Ministry of Education has evolved during the past 18 months with regard to its views on the role of the ministry. At the beginning of the Transitional Islamic State of Afghanistan (TISA) the Ministry of Education emphasized its role as the sole producer of services and educational inputs. However, Ministry of Education has begun to stress more the role of the NGOs and the private sector in service delivery. It has begun to emphasize its role as one of policy making, regulating and monitoring service delivery, facilitating the roles of others and contracting for services. This needs to be further reinforced together with appropriate shifts at the Provincial and District Education level to support schools as the key service delivery points.

This declaration and the subsequent Ministry of Education actions illustrate a positive shift in policy towards NGO provision of schooling. Discussions with individuals in different Ministry of Education departments indicate a growing awareness of and interest in community schooling in Afghanistan. For example, the Teacher Training Department has agreed to include home-based and community-based teachers in its recently launched large-scale national Teacher Education Program (TEP). The Ministry of Education is attempting to make teacher manuals available to home-based teachers and to ensure that teacher resource centers are open to home-based teachers in each district. NGO staff, including IRC personnel, have been very involved in the design and implementation of TEP.

The Ministry of Education is currently establishing large-scale and long-term national initiatives, including school construction, curriculum reform, and teacher training reform. The newfound stability and authority the Ministry of Education has begun to receive as a result of these efforts have made it less reluctant to engage and collaborate with NGOs. If this trend continues, a more

candid dialogue can take place on the state's role in serving thousands of children who are receiving education outside public schools or not at all.

While the policy context at the national level has just begun to evolve towards a more mutually supportive relationship between the Afghan government and NGOs, IRC's HBS program has successfully established this kind of relationship at the local level for several years. For example, negotiations that enable the integration of home-based students and teachers into public schools have taken place and continue to take place at the provincial level. Provincial education directors have seen the IRC training of public school and home-based teachers first hand and often visit home-based schools. As a result, provincial directors are more aware of the mutual benefits of close cooperation than their national Ministry of Education colleagues.

At the provincial level, education authorities are also able to control the pace of school integration in order to match the province's capacity to absorb new teachers and students into the government system. Furthermore, provincial directors can make specific local accommodations to respond to the evolving local context. For example, in Nangarhar, IRC and the Provincial Education Office have agreed that existing home-based schools will become satellite schools in areas furthest from public schools, where integration is not a viable alternative. Satellite schools are managed as semi-autonomous units but are technically under the auspices of the closest public school. This allows the home-based teachers to officially be put on the Ministry of Education payroll and allows the students to integrate into Ministry of Education coverage, while local CECs still maintain authority over important decisions such as teacher selection.

Recent progress in establishing a more supportive environment for home-based and community-based schools is encouraging. Yet there is clearly a great distance to go before the full potential of NGO and government collaboration can be reached and necessary government resources are made available to support home-based schooling. This could involve:

- The Ministry of Education providing instructional resources to home-based teachers;
- The Ministry of Education committing support to home-based schools by including them in teacher and school supervision activities; and/or
- The Ministry of Education recognizing the experience and commitment of home-based teachers by putting them on the government payroll.

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Meeting EFA: Afghanistan Community Schools

Introduction

From 1979 to 2002, Afghanistan was in a near constant state of war and exhibited some of the lowest levels of development in the world. The decade-long struggle from 1979 to 1989 between a Soviet-backed regime and the Mujahideen severely weakened state capacity.

The early 1990s saw a slight increase in security and social services and the return of many refugees. However, continued war between 1994 and 1996 and the consequent emergence of the Taliban negated progress made during those years. While local conflicts and Taliban remnants continue to challenge Afghanistan's reconstruction and stabilization, significant progress has been made since the 2001 U.S.-led invasion and subsequent fall of the Taliban.

Under the leadership of the transitional government, Afghan ministries began to standardize policies and implement changes. The Ministry of Education began re-establishing formal schools and allowing girls to participate in public education for the first time since the Taliban ban on secular education for girls. The work of the Ministry of Education and international nongovernmental organizations (NGOs) led to a dramatic increase in primary school enrollments. Data collected by the United Nations shows that less than one million students enrolled in primary school in 1999. In 2003, nearly 3.6 million had enrolled. This expansion has been particularly beneficial for girls, among whom enrollment has increased from a 3 percent gross enrollment ratio of 64,000 in 1999 to an enrollment of almost 1 million in 2003.

Despite these advances, the effectiveness and legitimacy of Afghanistan's governing institutions are still being tested on the federal, provincial, and community levels. This is especially evident in areas in the south where extensive poppy cultivation and weak security remain.

Since the mid-1990s, a small number of NGOs have promoted community and home-based schools as approaches to expanding access to primary education, despite Afghanistan's challenging and ever-changing political landscape. These schools are usually based in homes or mosques, hire local teachers, and receive supervision and financing from Village Education Committees (VECs) with the help of NGO partners.

CARE Afghanistan launched its first small pilot education access program in Khost province in 1994. The initiative has evolved into the Community Organized Primary Education (COPE) program and now operates in nine provinces. This EQUIP2 Case Study examines the model and outcomes of the COPE program as well as the institutional and cultural context of the areas in which COPE schools operate. The complementary model developed through the COPE program offers an example accurately, the home-based classrooms—are either single-sex or mixed and are located of a working, collaborative partnership between communities, local and national governments, and an international NGO.

Since 1998, the COPE program has operated successfully within the context of Afghanistan's changing legal, political, and security environment. The goal of the COPE program is to reach underserved regions and populations with quality, community-managed education opportunities. CARE initially designed the COPE program to operate independently, outside the Taliban government, although the national conditions often required agreements with local Taliban officials. However, since the Afghan Ministry of Education has re-emerged as the dominant force in the education sector, CARE has shifted program design to integrate COPE schools and students into the government-controlled public school system—a major component of the model's success. The Ministry of Education has encouraged CARE

to continue establishing COPE schools in underserved areas and has sought out its advice and capacity-building expertise. The partnership suggests that the Ministry of Education recognizes the value of CARE's complementary model to increase access in rural areas and the technical capacity of CARE's staff.

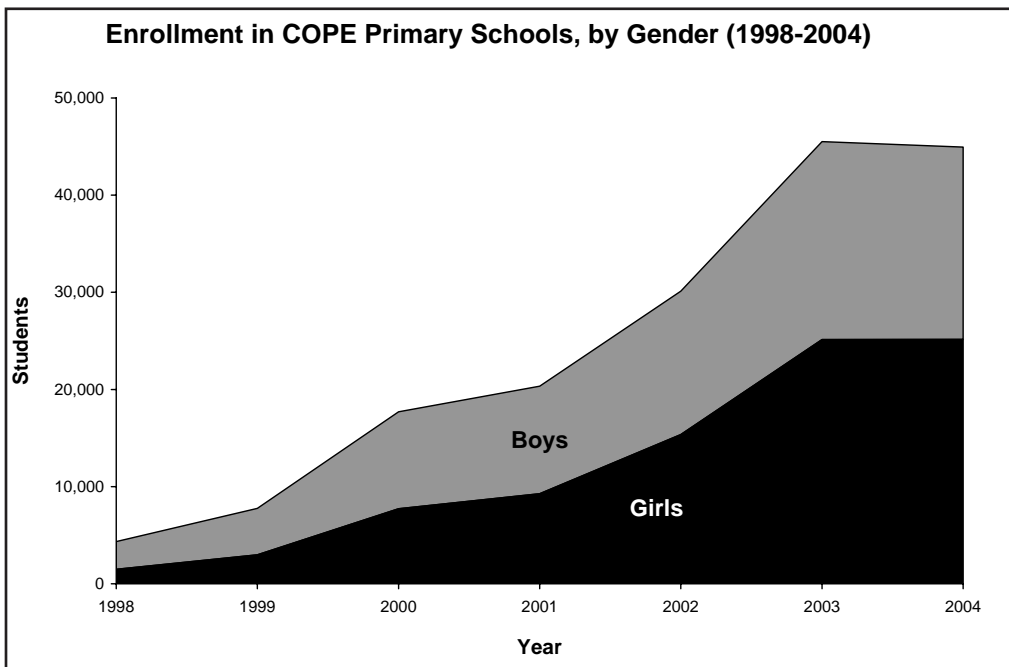
COPE has grown and progressed significantly since its inception, including during the height of Taliban power in the late-1990s and early-2000s and during the U.S. invasion of Afghanistan in 2001-2002. By 1998, the post-pilot program included operations in 64 schools in Khost, Paktia, and Ghazni provinces. COPE expanded to seven provinces in 1999 and opened an additional 57 schools. By 2003, the COPE program was operating in 479 schools in nine provinces. This case study examines the growth and impact of COPE schools in Afghanistan from 1998 to 2003.

Program Outcomes

Access

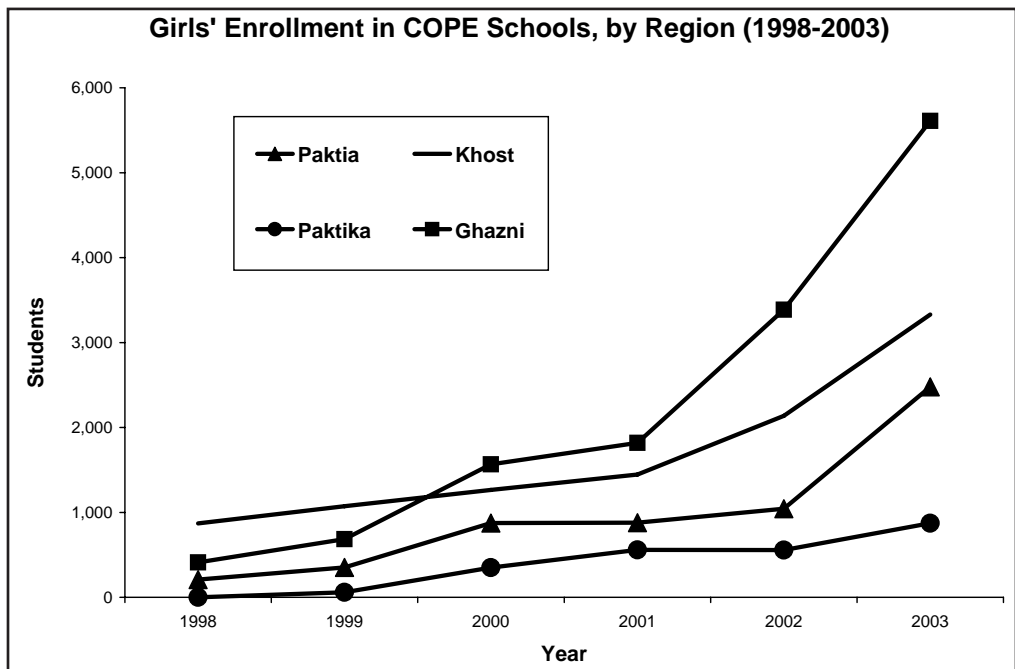
COPE school enrollments increased consistently each year from 1998 to 2003. In 1998, COPE schools enrolled 4,411 participants in three provinces. In 2003, COPE schools enrolled 45,514 participants in nine provinces.

Afghanistan's transition to the post-Taliban era saw the re-entry of the government as the major player in provision of primary education to boys and girls. The Ministry of Education, in conjunction with the United Nations Children's Fund (UNICEF), implemented the Back to School program in 2002, which resulted in a massive increase in public school enrollment and steady increases in COPE schools. Enrollment more than doubled in six of the nine provinces in which COPE worked: Wardak, Logar, Ghazni, Paktia, Paktika, and Khost. A comparison of COPE program data with enrollment data from the Multiple Indicator Cluster Survey collected by UNICEF in 2003 suggests that COPE schools increased provincial-level enrollment by nearly 10 percent in these six provinces.



As a result of the Taliban's restriction of secular education for girls, NGO programs, including COPE, accounted for 100 percent of girls' primary enrollment in Paktia, Paktika, Khost, and Ghazni from 1998 to 2001. Girls' enrollment in COPE schools increased at a greater rate during this period than boys' enrollment, accounting for a greater percentage of the overall dramatic increase from 2001 to 2003. COPE annual reports show that girls' enrollment reached over 12,000 students in 2003 in Paktia, Paktika, Khost, and Ghazni provinces. From 1998 to 2003, female enrollment as a percentage of total enrollment in COPE schools increased from 34 to 55 percent.

The rapid expansion of female enrollment in COPE schools after the fall of the Taliban parallels gross enrollment patterns across the country. Girls' enrollment increased by over 100 percent in all but two provinces from 2001 to 2003. In 2003, COPE schools in Khost and Logar accounted for 37 and 33 percent, respectively, of all girls in primary schools. In Paktika, Paktia, and Ghazni, COPE's share of all enrolled girls was approximately 16 percent.



One of the greatest barriers to access to primary school in Afghanistan, especially for young children, is the distance to schools from home. COPE schools' locations are chosen specifically to reduce the impact of distance as a barrier to access. CARE requires that there be no other schools within three kilometers of a new school location. This policy dramatically increased access among children, especially very young children, who previously lived too far away from existing schools to begin first grade. Almost 50 percent of children attending COPE schools between 1998 and 2003 were enrolled in first or second grade.

Completion

A 2002 estimate from an assessment conducted by the European Union demonstrated that only 37 percent of students enrolling in first grade continued on to fifth grade in public primary schools. Reliable data is not available to calculate the survival rate through sixth grade, which is the final

grade of primary school in Afghanistan. A case study by the International Rescue Committee (IRC) estimated that the completion rate through fifth grade for the public school system was approximately 31.5 percent in 2003. The average dropout rate for both girls and boys was 10-12 percent at each grade level.

In contrast, COPE schools have exhibited dramatically higher survival rates and lower dropout rates. Since COPE schools allow for year-round enrollment, different schools within the same province have cohorts starting at different times. Though this complicated a cohort analysis, two different methods of analysis, both using the annual year-end figures reported by COPE, show that COPE schools have survival rates to sixth grade of at least 50 percent. Additionally, dropout rates for COPE schools are much lower than for public schools. The average dropout rate from 1998 to 2003 was 8 percent, ranging from 6 to 14 percent in any given year. In most years, the dropout rate for girls was 1 or 2 percent higher than that for boys.

Graduations rates were more difficult to calculate. From 2001 to 2003, significant numbers of students transferred from COPE schools to public primary schools at higher grade levels. Unfortunately, sixth grade records do not specifically detail student transfers, leaving open the possibility that students who transferred to public schools have been counted as non-graduates or dropouts, causing the COPE graduation rate to appear lower than accounts suggest. This uncertainty made it difficult to confidently calculate a graduation rate for the 1998 enrollees. However, COPE records show that 531 of the 783 students graduating from COPE schools in 2003, accounting for 68 percent, continued on to secondary school.

Learning

COPE schools follow the same curriculum and formal examination schedule as public schools. Students are tested in math and literacy using teacher-designed exams. COPE staff provide teachers with training in test administration and design in order to help teachers adequately measure student competency and comprehension. In recent years, COPE staff has started to provide in-service teacher training on the basic competencies framework. Even so, standards for the assessment of student proficiency in basic competencies were not a feature of government- or NGO-led primary schools in 2003.

The following table shows graduation exam pass rates for the COPE program from 2000 to 2003. Data include aggregate grade graduation exams from first through sixth grade for

both boys and girls. Note that the range of pass rates between boys and girls and across grades over the period of 2000-2003 is consistently above 91 percent. Still, since exams vary from teacher to teacher, exam results alone do not provide sufficient data to assess student proficiency in numeracy and literacy.

COPE Graduation Exam Data (2000-2003)

	2000	2001	2002	2003
Pupils Examined	6,057	18,394	21,950	24,431
<i>Number Passed</i>	<i>5,579</i>	<i>17,147</i>	<i>20,028</i>	<i>23,074</i>
Percent Passed	92%	93%	91%	94%

COPE schools' significant investment in teaching and learning materials likely supported the classroom learning environment. From 2000 to 2003, COPE provided 173,000 textbooks and teacher guides to COPE schools and provided 1.4 million pieces of stationery. Additionally,

continuous assessment, high levels of student-teacher contact time, and the positive learning environment of COPE schools might have contributed to consistently strong test results.

Integraion

In 2002, CARE began working with the Ministry of Education to implement a Gradual Activity-Based Phase-Out Strategy. The strategy laid out a plan for the incremental integration of COPE schools into the public school system. The strategy suggested that, as provincial and district education departments develop institutional capacity, the COPE program would transfer specific management activities to the government. Over time, all COPE schools will be fully handed over to government management and integrated into the public system. However, this transfer will not take place until the Ministry of Education has adequate capacity to manage the COPE schools and provide an education that is comparable to or better than the education students are receiving through the COPE program.

According to Singh in the 2004 “COPE Evaluation Study for CARE Afghanistan,” COPE had fully handed over 112 and partially handed over 125 schools to the government by March 2004. In addition to school transfers, CARE had also partnered with the Ministry of Education in Afghanistan to develop the capacity of Provincial Education Departments by training public school teachers and administrators on education management, teacher training, and monitoring and evaluation.

In 2004-2005, COPE school enrollment fell by 50 percent as COPE schools were integrated into the public education system. No documentation definitively states whether the integrated schools include the features previously considered critical to COPE schools’ success. Under government management, it is not clear whether VECs will continue to have a significant voice in school management or generate resources for schools. It is also unclear whether the government will have adequate resources for teacher salaries and amenities.

Cost and Cost-Effectiveness

The recurrent cost for the COPE school program averaged approximately \$1.13 million between 2001 and 2003. Recurrent expenditures include teacher salaries and training, travel, and transportation, materials and supplies, home office support, and salaries for COPE staff. Teacher salaries have been included in the total recurrent costs but are not technically a part of the COPE program budget because VECs are responsible for paying teachers. In addition to recurrent costs, COPE spent an estimated \$62,918 piloting the program from 1995 to 1997. Startup costs included technical assistance, materials, and project design.

COPE Program Costs (2001-2003)

	Cost (U.S. dollars)	Percentage of Total
Salaris and Wages of COPE Staff	\$1,320,742	38%
Materials and Supplies	\$1,042,331	31%
Salaries of Teachers	\$365,670	11%
General Operations	\$238,213	8%
Travel and Transportation	\$255,895	7%
Supervision and Training	\$178,941	5%
Other Costs	\$5,058	less than 1%
TOTAL	\$3,406,850	100%

The Ministry of Education annual budget for 2004-2005 was approximately \$154 million. Recurrent costs included curriculum and materials, teacher salaries and development, and capacity-building equipment. Total costs for the Ministry of Education budget included an additional \$10.52 million for education policy and reform and \$194.62 million for education infrastructure. Including these items raises the overall budget to \$359 million.

Recurrent cost for students enrolled in COPE schools in 2003 was \$38. Data from previous years indicate that the cost per student for the COPE program remained fairly consistent over the COPE project's last five years. Comparable data in government schools show recurrent costs at \$37. Cost-effectiveness of COPE schools can be evaluated in terms of the average cost to produce a primary school completer (i.e., a student that finishes the program) and cost per learning outcome. Based on average cost per student and average completion rate, the cost per completer in COPE schools is \$453. Unit cost per completer in Afghan public primary schools is much higher at \$704 in 2003 and \$594 in 2004.

Cost Per Student and Cost Per Completer in COPE and Afghanistan Public Schools (2003)

	Cost Per Student	Completion Rate	Cost Per Completer
COPE Schools	\$38	50%	\$453
<i>Public Schools</i>	<i>\$37</i>	<i>32%</i>	<i>\$704</i>

In December 2003, 94 percent of COPE students passed their year-end exams, making the cost per learning outcome just over \$40. Data on the cost per learning outcome for public school students are not available.

Critical Features of COPE

The COPE model was established during a period when secular girls' schooling was outlawed and in an environment where national institutions did little or nothing to address basic education at the community level. Most of the communities in which COPE schools operated were religiously conservative and exhibited low levels of formal education. As a result, the COPE program demonstrated a number of critical features that helped schools gain traction and trust in the early years of the program and maintained community confidence during the establishment of the transitional government.

School Organization and Management

The COPE model's success was a result of clearly articulated management guidelines:

- Use criteria-driven procedures for selecting school sites and developing VECs.
- Clearly articulate the roles and responsibilities of NGO staff and community stakeholders.
- Offer sustained commitment to training and operational support to COPE schools.

The COPE program decides where to open new schools based on the results of a baseline survey that assesses community need and interest. The five selection criteria are:

- Target communities must demonstrate a strong interest in primary education.
- No other functional primary school should exist within a three kilometer radius.
- The community must produce a list of potential enrollees, 30 percent of whom must be girls.
- The community must provide a space for the school (e.g., a local mosque).
- The community must be willing to form a VEC and pay a teacher's salary.

Communities that meet all these criteria are invited to form VECs and enter into formal agreements with CARE. VECs must agree to provide school space, manage teacher selection and payment, resolve school problems with the community and local authorities, and implement a monitoring and evaluation system. CARE then agrees to provide training to VECs and local teachers, supply classroom materials to students and teachers, and offer additional management support. VEC training consists of courses in community participation, school management, resource mobilization, and conflict resolution.

When COPE schools integrate into the public education system, VECs maintain some degree of school oversight by becoming parent-teacher associations (PTAs). PTA responsibilities include promoting education in the community and helping teachers manage student education problems. However, once integrated into the public education system, PTAs have little say in school finance, teacher hiring, and school management decisions.

CARE offers constant technical and operational support to COPE schools. The COPE program is one of several programs organized by CARE Afghanistan and is directed by a project manager, a deputy project manager, and a technical advisor. Project supervisors work under these three managers and supervise a staff of community organizers, teacher trainers, and data management staff. Community organizers help communities mobilize resources and develop VEC capacity. Teacher trainers monitor teacher technical development to ensure that quality education is provided in all COPE schools.

CARE community organizers visit new schools every week. Once a school has been established for six months and is considered stable, it is visited once a month. All COPE field staff members receive training in leadership, education management, coordination and partnership, and monitoring and evaluation. Within the Ministry of Education, the Department of Inspection oversees the supervisory functions of government primary schools. Government supervisors inspect an average of 10 schools two to three times per year.

Teachers

VECs use criteria developed by COPE staff to hire local teachers. Although teachers are not required to have any official qualifications, most have a twelfth grade education. Teacher candidates are expected to be Muslims of good behavior, acceptable to all parents, and able to read and write. Potential teachers are given a simple basic written exam or oral test by the VEC or teacher trainers. While the project emphasizes hiring female teachers, given the dearth of female candidates, a local mullah is often chosen.

Once hired, teachers receive pre-service training in teaching methodology, subject content, materials development, and textbook use as well as in-service training on the basic literacy and math competencies. COPE teachers are paid less than government school teachers on average and many parents in poor communities pay teachers with in-kind offerings rather than with currency. Teachers are evaluated regularly by VEC members, teacher trainers, and COPE community organizers. For their first six weeks of teaching, new teachers receive monitoring visits from COPE teacher trainers every week. Once schools stabilize, teacher trainers visit schools once per month.

Curriculum and Learning Environment

When the COPE project began, COPE schools filled a service gap in communities where schooling opportunities for boys and girls did not exist. COPE schools adopted the same curriculum as government schools so that COPE schools could eventually integrate into the government system.

In order to create a better learning environment and respond to local realities, teachers and VECs often change the school day or calendar and use local language instruction. In the classroom, children are divided into first through sixth grade and are tested in accordance with the Ministry of Education exam schedule.

Former COPE Project Manager, Hassan Mohamed, noted that “a typical day for a COPE school begins with the teacher and one VEC member arriving 10 to 15 minutes before the school opens. On their arrival, the students greet the teacher who then holds a general assembly reciting prayers and songs. After bringing order to the class, the teacher takes the attendance and checks the homework. Each class is held for 45 minutes. A break of five to 10 minutes is given before resuming the next class. The average daily number of hours for grades one through three is five hours and 25 minutes, while the daily average for grades four through six is six hours and 25 minutes.”

In response to community interests, COPE schools pay particular attention to religious subjects such as Islamyat, Tajweed, Fiqa, and Aqaid. COPE project reports document that community members and local authorities are pleased with COPE students’ demonstrated knowledge of religious subjects.

CARE in Afghanistan

A critical feature contributing to the success of the COPE program is the reputation of CARE as a long standing and committed partner to development issues in Afghanistan. CARE has been operating in Afghanistan since 1960, with a hiatus from 1978 to 1989, and continues to run various successful projects. CARE chose to pilot the COPE school project in Khost province where it had previously seen the successful implementation of a food security project. CARE’s sustained presence in many Afghan communities and its commitment to nurturing local relationships has helped COPE community organizers initiate new schools in various regions of Afghanistan and sustain relationships with VECs and government officials. CARE continues to play a critical financial, technical, and program development role in the COPE program in Afghanistan.

Policy and Institutional Context

Over the past 30 years, Afghanistan has been characterized by an unstable political environment, low access to formal education, and high incidence of poverty. Traditional religious and cultural observances among particular groups have made it especially difficult for girls to receive primary education. This unpredictable environment has both attracted and discouraged international agencies and local efforts, making for inconsistent program implementation and funding.

In the mid-1990s, the return of many refugees who had been exposed to primary education in Pakistan and Iran and the Mujahideen-backed regime’s efforts to increase primary enrollment led to increased demand for and access to education in most provinces. According to Chabbot in 1999’s “Community Organized Primary Education Project—CARE Afghanistan: Mid-Term Evaluation” and Van Klamthout in the executive summary of 1995’s “Mid-decade Review of Progress toward Education for All in Afghanistan,” boys accounted for nearly all the enrollment increases between 1991 and 1995. Girls’ enrollment reached 10 percent in only two provinces. Even with these small improvements, Van Klamthout described the education system in Afghanistan as “minimally functioning” and the provision of primary education as being implemented “in a heterogeneous and fragmented manner...[where] most children drop out of school before attaining literacy and numeracy skills.”

In 1996, after the fall of the Mujahideen and during the rise of the Taliban, community and home school primary education programs were primarily supported by the Swedish Committee for

Afghanistan (SCA), IRC, and CARE. During that period, most international NGO activities were located in the primarily Pashtun regions of Kabul and Southeastern Afghanistan. The combination of weak Taliban rule and a strong Pashtun culture encouraged NGOs to follow a strategy of creating buy-in for primary education at the community level as a first step in starting individual schools.

Pashtuns have traditionally restricted girls' access to secular education, in part based on the Pashtunwali, a code that Chabbot suggests binds the status of the community to the prudent behavior of women. However, while the Taliban emerged from conservative elements of Pashtun culture, many Pashtun areas, particularly rural areas near the Pakistani border, barely tolerated Taliban rule and remained largely independent of Taliban control.

According to COPE's second quarter report in 1998, the Afghan Ministry of Planning delivered an edict in June 1998 stating "for proper implementation of schools [NGO] direct contact to schools [must] be stopped." The CARE report noted that since the enforcement of the edict was limited to the Kabul area, COPE staff would carry on operations as usual. In 1998 -1999, COPE schools in Paktia, Maidan/Wardak, Paktika, and Ghazni were operating based on separate agreements with provincial Taliban officials and community support.

During the Taliban rule, COPE schools steadily grew in number and reach, and policy efforts to expand primary education gradually moved from the local and district levels to the national level. Though COPE signed a protocol with the Taliban Ministry of Education to endorse its efforts to provide education to children, it was not certain in 1999 whether this policy increased the scope of CARE's local and provincial work.

Following the U.S. invasion of Afghanistan in 2001-2002, the environment for education did not immediately improve. Interethnic skirmishes in Khost led to the closing of two schools. In Gardez, a COPE school teacher was killed. In Paktika, several girl students were killed by land mines and a school was destroyed by a bomb.

The post-invasion environment brought education sector changes that were challenging for many NGOs that played a large role in the provision of primary education during Taliban rule. The period saw a proliferation of NGO activity, a dramatic increase in donor funding, an increase in local demand for education, and the emergence of a Ministry of Education keen to drive education policy and often struggling to coordinate donor activities.

In 2002-2003, the COPE program began to build relationships with the various departments within the Ministry of Education and prioritize coordination with other local and international NGOs. The influx of resources, new NGOs, and education methods challenged many practices fundamental to the COPE program. Incoming NGOs offered to pay teacher salaries, build schools, or distribute large amounts of learning materials. According to Singh, these new NGOs often did not understand the local realities in Afghanistan implementing programs with varying levels of competence or in ways that conflicted with other NGO or government efforts in the region.

During the transition period, the Ministry of Education re-emerged as the dominant force in the provision and expansion of primary education. However, the Ministry was often forced to make difficult policy and programmatic tradeoffs given its dearth of financial, managerial, and technical resources. In many communities, complementary programs had been the sole providers of primary education for over five years and had established their legitimacy locally. Under these circumstances, the Ministry of Education likely felt challenged by complementary education programs.

In October 2004, after a lengthy constitutional process, a *loya jirga*, and an election, the Transitional Islamic State of Afghanistan became the Islamic Republic of Afghanistan. While the transitional Ministry of Education was initially unwilling to support complementary models of education, the strong and accepted presence of NGO-run community-based schools led the Ministry to reconsider its policy. As the partnership between the Ministry of Education and CARE has developed in Afghanistan over the years, the government has urged CARE to open new schools in remote rural areas and remain involved in the training and support of public school teachers, local and regional administrators, and community leaders.

Over the next decade, Afghanistan will prove fertile ground for further research on quality and cost-effectiveness issues surrounding expansion of primary education. Further research on the success of the COPE schools that were handed off to the government could yield interesting results. Additional assessment of the absorption of the COPE program into the Afghan public school system and the institutionalization of COPE's critical features could also reveal the possibilities and limits of complementary education models as a bridge for underserved populations to access traditional education systems.

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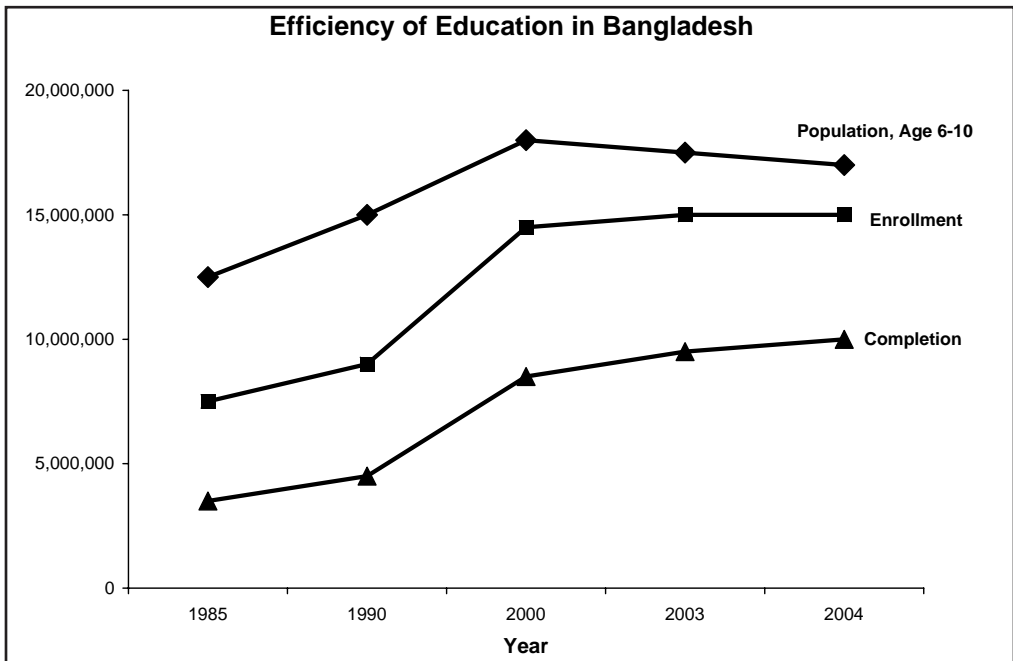
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Meeting EFA: Bangladesh Rural Advancement Committee (BRAC) Primary Schools

Introduction

Bangladesh introduced universal primary education in its second five-year development plan, for 1980-1985. The plan allocated approximately 46 percent of the education budget to primary education, while The World Bank and a consortium of donors for primary school construction provided an additional \$140 million. However, Bangladesh had already fallen behind meeting education sector needs by the time these assistance programs were initiated.

In Bangladesh's first decade of independence, the number of primary-school-age children increased by more than 50 percent, according to the Bangladesh Bureau of Education Information and Statistics in 2004. By 1985, the number of primary-school-age children was estimated at about 14.8 million. However, according to the United Nations Children's Fund (UNESCO) in "An Analysis of the Situation of Children in Bangladesh," less than 60 percent ever enrolled in primary school and less than 50 percent of those who enrolled completed all five grades. While enrollment and completion rates have improved in the last decade, rising to 83 percent and 67 percent, respectively, the following graph illustrates the Bangladeshi primary school system's inefficiency.



Of the 4.6 million Bangladeshi six- to 10-year-olds who are out of school, two-thirds belong to the bottom two consumption quintiles, according to Anil B. Deolalikar in *Attaining the Millennium Development Goals in Bangladesh: How Likely and What Will It Take to Reduce Poverty, Child Mortality and Malnutrition, Gender Disparities, and to Increase School Enrollment and Completion?*, and 88 percent live in rural areas. Girls tend to be the greatest population outside the school system and reflect the lowest achievement levels.

While great strides were made to provide education to the underserved, the government, with support from foreign donors, achieved some of these goals in counter-productive ways. Rather than expanding the public primary education system, the government supported the development of private community schools of poor quality, poor funding, and little supervision. In the mid-1990s, the government used food ration and feeding programs to encourage attendance in already overcrowded government schools. While access to education increased, quality slowly declined. It was in this context that the Bangladesh Rural Advancement Committee (BRAC) began to explore ways to help children from its rural development program gain access to improved education.

BRAC was already one of the largest indigenous development and relief nongovernmental organizations (NGOs) in Bangladesh by the mid-1980s. By 1984, it had launched 22 experimental, one-room, non-formal primary education (NFPE) centers for children of the rural poor. Aware that girls were even less likely to attend formal schools than boys, the NFPE centers enrolled 70 percent girls, hired and trained a teaching staff more than 70 percent female, and adapted its life-skills-oriented adult literacy materials as more child-centered materials. By 1996, BRAC contributed approximately 10 percent of all primary school enrollments and operated 34,000 primary schools.

Working mainly in rural areas, BRAC focused on improved quality through improved education service delivery, management detail, and finance. While various components changed over time, the NFPE centers remain the core activity for the BRAC Education Program (BEP). In 1999, BEP entered Phase III, in which the 34,000 NFPE centers offering first through third grade were transformed into BRAC Primary Schools (BPSs) offering a complete first through fifth grade education.

There are three types of schools generally referred to as BRAC schools in Phase III:

- BPSs, which are four-year programs for eight- to 10-year-olds, covering first through fifth grade;
- BRAC Adolescent Primary Schools (BAPSSs, formerly BEOC/KK), which are four-year programs for 11- to 14-year-olds, covering first through fourth grade; and
- Education Support Program (ESP) schools, which are three-year programs for 8- to 10-year-olds, covering first through third grade in underserved areas and implemented by other organizations already working in those areas.

While all of these types of schools contribute to expanding access and quality in Bangladesh, this case study will focus solely on the BPS program.

The BPSs and government primary schools (GPSs) are both founded on the same competency-based curriculum, but key differences exist between the two programs. BPS student intake occurs every four years, compared to annually in GPS. Each BPS consists of one class of 25 to 33 students and one teacher, all of whom live within the same community within easy walking distance of the school. By comparison, the GPS must enroll a minimum of 150 students at an average of 61 per classroom and maintain a minimum of four teachers. To accommodate five grades, most rural GPS schools generally operate a double shift, which reduces the total number of contact hours for students. BPS averages 4,094 contact hours per primary cycle, compared to 4,046 for the GPS.

The following case study explores the BPS program through the lens of:

- Access, completion, and learning;
- Cost and cost-effectiveness;
- Quality, covering inputs, teaching and learning, and management; and
- Policy and the enabling environment.

Access and Completion

The number of government-run and -funded first through fifth grade schools increased by approximately 3 percent from 1980 to 2000 in response to offers of free textbooks and payment of up to 80 percent of teacher salaries. Enrollment in GPSs increased from approximately 8.2 million in the 1980s to more than 18 million in 2003—an increase of almost 45 percent over the 20-year period. The number of private government-supported schools increased more than 438 percent in the same time period. The GPSs successfully increased girls' enrollment from 39.6 percent in the 1980s to over 49 percent in 2003. In rural areas, 63 percent of female students are enrolled in GPSs.

While these schools provided increased access to education for Bangladeshi children, surveys of the rural GPSs reveal severe overcrowding, particularly in the lower grades, which contributed to poor attendance, achievement, and completion rates. The community schools, intended to also increase access and quality, did not fair much better. Located in urban or peri-urban areas, the schools did not reach the majority of underserved rural children. Moreover, teachers were untrained, little supervision existed, and families in the rural areas could not contribute sufficient resources to make community schools a viable option.

Public School Attendance Rates in Bangladesh (1970s-2000s)

	1970s	1980s	1990	1995	2000	2003	2004
Population in millions, 6-10 years old	—	12.52	14.91	—	18.11	18.02	17.97
Net enrollment rate: boys	—	—	—	79.0%	79.5%	—	83.3%
Net enrollment rate: girls	—	—	—	77.0%	79.7%	—	—
Total Schools	29,082	43,946	47,241	62,654	76,809	86,737	—
Public schols	91%	83%	79%	60%	49%	43%	—
Enrollment in millions	5.25	8.22	12.05	17.13	17.67	18.43	—
Girls Enrollment Rate	31.8%	36.6%	44.7%	47.1%	48.7%	49.2%	—
Rural public schools rate	—	—	—	—	61.6%	—	—
% Girls in rural public schools	—	—	—	—	63.0%	—	—
Attendance rate: rural boys	—	—	—	—	57.8%	—	—
Attendance rate: rural girls	—	—	—	—	55.1%	—	—

Sources:

Asian Development Bank (ADB). 2002. "Second Primary Education Development Program (PEDP II): 2003-2008." Manila, Philippines: ADB.

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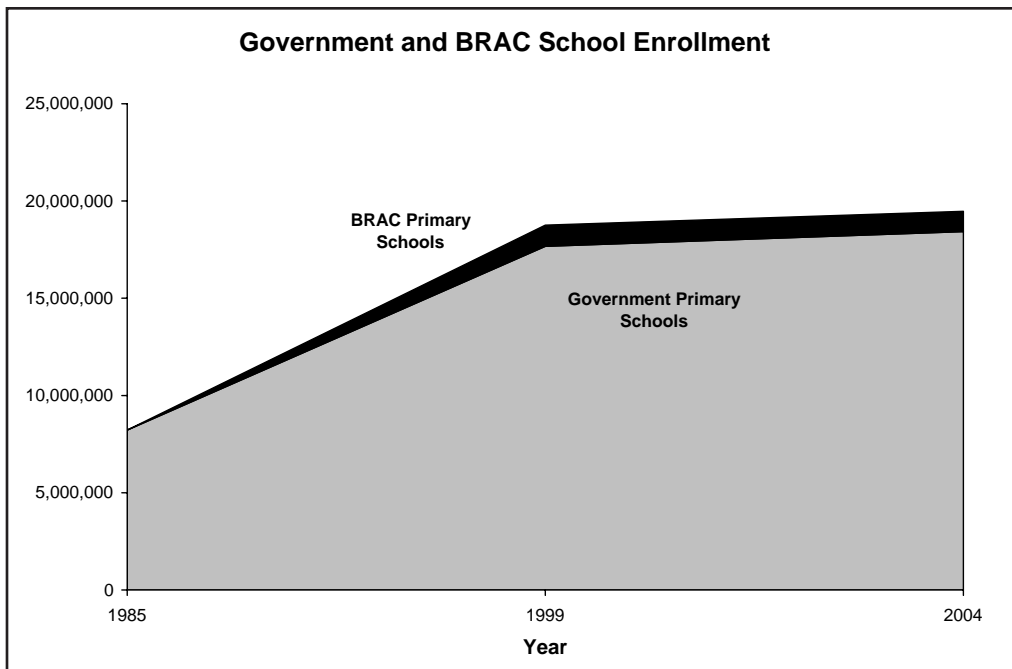
Chowdhury, A.M.R., S. Nath, R. Choudhury, and M. Ahmed. 2001. "Renewed Hope, Daunting Challenges: State of Primary Education in Bangladesh." Dhaka, Bangladesh: Campaign for Popular Education and University Press Limited.

BRAC began working in education in 1985 with 22 experimental one-room schools and 726 students. and grew to some 34,000 schools by 1999. From 1999 to 2004, the number of BRAC schools increased from 34,000 to 35,500 as enrollment stabilized at just over 1 million students, making BRAC easily one of the largest complementary education models in the world, according to EQUIP2 findings. The following graph demonstrates the BPS contribution to improved access from 1985 to 2004. Beginning with less than 0.1 percent of enrollment in 1985, BPS now accounts for approximately 8 percent of Bangladesh's total primary enrollment.

BRAC primary school attendance and completion rates tend to be higher than those in government schools, according to EQUIP2 research. For example, in 2001, BPS attendance was approximately 96 percent, compared to 61 percent in GPSs. Furthermore, BPSs are required to maintain an enrollment rate of at least 70 percent girls.

Enrollment in the government schools in 2000 was approximately 18 million. Of the 18 million, 62 percent were enrolled in rural government schools, 63 percent of whom were girls. While statistics for 2001-2004 were not available, it is likely that trends have remained relatively stable. Attendance rates for the rural GPSs range from 55 percent for girls to 57 percent for boys.

BRAC schools have much higher rates of completion than government schools, according to EQUIP2 research. From 1999 to 2004, BPS completion rates increased slightly from 93 to 94 percent. Government schools averaged a completion rate of 67 percent in 2004, up from 64 percent in 2001. Rural GPSs had a completion rate of 75 percent in 2000.



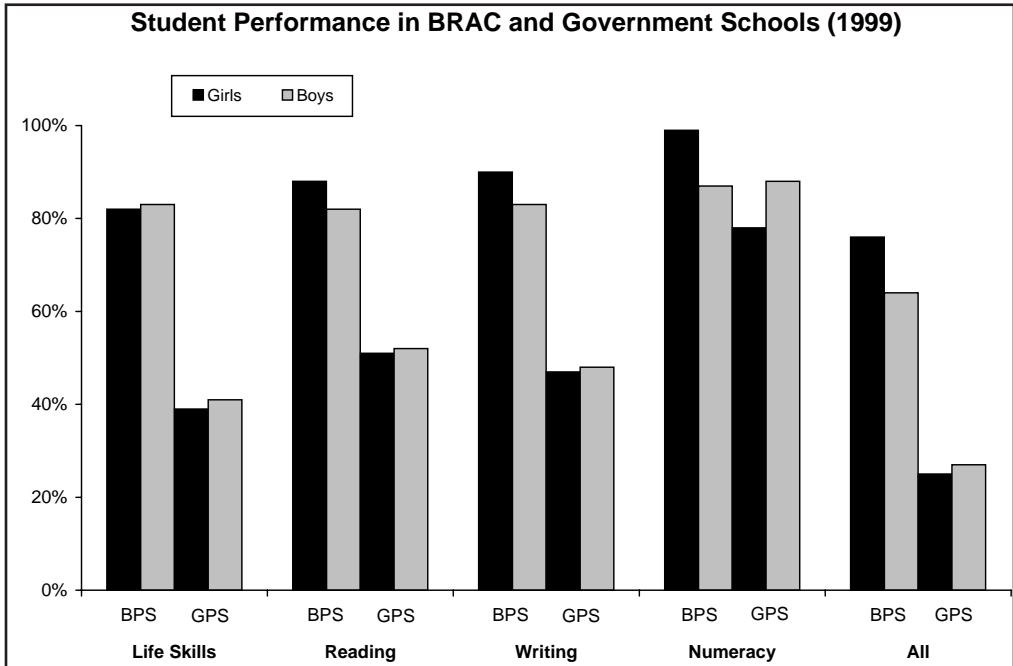
Learning

Since various factors that affect learning in Bangladesh—socioeconomic status, teachers' education level, infrastructure—are usually better in GPSs than in BPSs, GPSs might be expected to perform better academically than BPSs. This was indeed the case in the 1980s and early 1990s. However, recent studies indicate that BPS student learning has improved.

To improve learning assessment under BEP, the head of BRAC's Research and Evaluation Division developed the Assessment of Basic Competencies (ABC) tool in 1992 to rapidly assess basic literacy, numeracy, and life skills. The ABC measures general knowledge competencies, but not necessarily those in the official primary school curriculum. The results show that rural BPS students performed slightly better than government school students in writing and arithmetic and significantly better in life skills. Overall, BPS students scored an average 53 percent, compared to only 39 percent by their GPS counterparts. When this test was repeated in 1999, BPS students performed at a higher

level than seven years prior, at an average of 69 percent, while GPS students scores decreased to an average of 27 percent. The following graph shows the subject-by-subject comparisons for boys and girls in BRAC and government primary schools.

In 2003, BEP negotiated an agreement with the government that allows BPS students to take the secondary school scholarship exam given in fifth grade. According to the report on “BEP Phase III: 1999-2004,” an average 10 percent of GPS students who take the exam pass while 13 percent of BPS students who took the exam in 2004 passed.



The BRAC Research and Evaluation Division’s annual competency-based assessments of BPS have not found a pattern of improvement or decline in 2003 and 2004. However, because BPS only expanded to fourth and fifth grade in 2002, it may be too soon to measure the results of the additional investment in pedagogical instruction.

Costs and Cost-Effectiveness

BPS costs should be viewed from various perspectives. What does it cost to develop such a program? What does it cost to operate the program? What makes up those costs?

The total recurrent costs for the BPS program are \$20,456,104 per year, or about \$2,305 per school. The recurrent expenditures include teacher salaries and training, travel and transportation, materials and supplies, research, home office support, and operational costs. The table below presents an overview of the main cost components and the percentage of the budget allocated to each activity.

BPS Program Costs per School

	Price in U.S. Dollars	Percentage of Total
Teacher costs	\$738	32%
<i>Student books and supplies</i>	\$626	27%
Office furniture and rent	\$0	0%
<i>Field operations</i>	\$772	33%
Research and evaluation	\$19	1%
<i>Home office management and logistics</i>	\$150	7%
TOTAL	\$2,305	100%

It is important to examine and compare cost-effectiveness in terms of cost per completer and unit cost per student enrolled. As the following table indicates, the annual recurrent cost per student enrolled in BPS is \$20, compared to \$29 in the GPS.

Estimated Per-Pupil Unit Costs in Community and Public Schools

	Recurrent Annual Budget	Recurrent Cost per Student	Completion Rate	Cost per Completer
BPS	\$20,456,100	\$20	94%	\$84
GPS	\$18,000,000	\$29	67%	\$246

The cost-effectiveness of the BPS program can be evaluated in terms of its average cost to produce a primary school completer. According to EQUIP2 research, the completion rate for the BPS-equivalent of first through fifth grade was approximately 94 percent in 2003, compared to GPS's 67 percent in 2001. Based on the unit costs in the previous table, the cost per BPS completer was \$84 per student in 2003, compared to \$246 per student in the GPS program in 2001. The difference partially stems from lower BPS per student costs and the fact that students can complete the program in four years, compared to five years in the traditional system. BPS's higher completion rate also contributes to the lower cost per completer. Lower teacher salaries, higher teacher quality, proximity to the community, better teacher and student attendance rates, and low-cost materials also contribute to BPS's cost-effectiveness. It should also be noted that GPS students pay an additional \$11 per year for uniforms, fees, transport, and tutors, which was not included in the previous calculations and would increase the cost per student accordingly.

According to the Assessment of Basic Competencies tool administered to a sample of BPS and GPS students in 1992 and 1999, BPS students performed better in both years. In 1999, BPS students averaged a 70 percent pass rate, reflecting a cost of \$122 per student achieving a required level of learning. GPS students averaged only a 27 percent pass rate, reflecting a \$929 cost per student.

When a sample of 327 BPS students and 412 GPS students participated in an achievement test intended to measure acquisition of the 27 government of Bangladesh competencies, 8.4 percent of BPS students demonstrated knowledge of all 27 competencies, compared to 1.2 percent of GPS students. The cost per student for this level of achievement was \$996 per BPS student and more than \$20,000 for a GPS student.

Critical Features of BPS

To improve the quality of education for its students, BPS begins with low quality inputs (e.g., students, teachers, buildings), places them in a higher quality teaching and learning environment, ensures the inputs and environment come together by investing in pedagogic management, enlists a reliable, if modest, level of parent participation in governance.

Teachers

One of the important criteria for selecting a new BPS site is the presence of at least one adult, preferably a woman, who:

- Lives within the community;
- Has completed at least 10 years of education;
- Is willing and able to teach on a part-time basis;
- Accepts wages much lower than those paid to GPS teachers; and
- Agrees to thoroughly follow the BPS system.

The BPS system incorporates teacher responsibilities often missing in GPS:

- Participating in 12 to 15 days of training prior to the start of the school;
- Preparing a daily lesson plan and integrating special learning materials into the curriculum;
- Opening and closing school on time and taking responsibility for student attendance;
- Never using physical punishment or shaming;
- Attempting to engage students in more active learning approaches;
- Continuously assessing learner progress;
- Devoting more, not less, attention to slow learners;
- Participating in monthly School Management Committee meetings; and
- Participating in monthly refresher courses.

The same BPS teacher is responsible for a single cohort of students in the full three- and four-year cycles. Classes meet for three to four hours each day and six days a week on a schedule determined by teachers and parents. Students in first through third grades meet 207 days a year and third through fifth grades meet 230 days a year. BPS attributes high attendance and completion rates to the close relationship between the teacher and the students and to their close proximity to the school. Students who are not punctual or who are frequently absent may be replaced during the first three months of the first school year. The teacher or classmates check up on students who are absent, and students may search off school grounds for the teacher if she is late.

Administrative supervision is provided by program officers who visit each school at least twice per week, which effectively discourages teacher tardiness and absenteeism. According to editors Chowdhury, Choudhury, and Nath in *Hope Not Complacency: The State of Primary Education in Bangladesh*, the 1999 Education Watch survey found teachers absent in only 4.5 percent of non-formal, non-government schools.

Curriculum and Materials

BRAC curriculum is the same competency-based curriculum that is used in the GPS. The Bangladesh National Curriculum and Textbook Board (NCTB) defined the desired outcome of primary education in terms of 53 terminal competencies covering specific subjects—Bangla, mathematics, social studies—and domains—cognitive, affective, and psychomotor.

In 1999, BPS revised its teacher guides, student workbooks, and textbooks to fully reflect the 53 competencies around which the GPS curriculum was structured and to cover life skills not fully covered by the GPS curriculum. After reviewing the materials and textbooks associated with the curriculum, BPS determined that the NCTB materials were too urban-oriented and developed its own independent curriculum and materials development units. A complete set of textbooks and teacher guides for BPS grades one through three were developed, while NCTB textbooks were used for grades four and five. BPS also developed student workbooks for each subject and grade, story books for the lower grades, and other teaching and learning materials. The stated aim of all these materials was to create a child-centered, activity-based approach to learning and teaching.

BPS also ensures that students received slates, stationery, and a complete set of textbooks prior to the beginning of each new grade. By comparison, sufficient textbooks in good condition did not arrive in most rural GPS schools. As BEP began working with more indigenous children, BRAC curriculum and materials developers produced first through third grade textbooks in two or three indigenous languages and collected storybooks in these languages from other sources. It should be noted, though, that GPS textbooks are only available in Bangla.

BPS also limits homework, since illiterate parents can rarely assist their children, promotes the use of continuous assessment to help teachers diagnose and assist struggling children, conducts no formal evaluation of students, and does not allow children to repeat grades, which essentially removes issues of repetition.

While both GPS and BPS primarily use rote memorization techniques, outside evaluators who have had the opportunity to observe both BPS and GPS classrooms note significant differences:

- BPS has no more than 33 students, while GPS often has many more.
- BPS requires no help from family or tutors outside the classroom, which is more appropriate for poor families.
- BPS teachers are affectionate towards students while corporal punishment and neglect are common GPS tactics.
- BPS classrooms utilize child-centered approaches.

As a result of these differences, one Bangladeshi observer declared that BPS was similar to Montessori schools in the United States.

Governance and Management

BRAC and BPS's ability to scale up and maintain a standard of quality is different from many complementary models. Both of these aspects point to BEP's unique management model.

Education in Bangladesh is complex. The Ministry of Education's reach includes:

- Religious schools and primary schools attached to secondary schools, involving the Ministry of Religion and the Directorate of Secondary Education;
- A large capital construction and rehabilitation activity, involving the Ministry of Local Government and Construction;
- The development, production, and distribution of textbooks and materials; and
- The training of teacher educators, teacher education, and all associated training materials.

There are five levels of control between the Directorate of Primary Education in Dhaka and teachers, including the Deputy Director of the Divisional Primary Education Office, District Primary

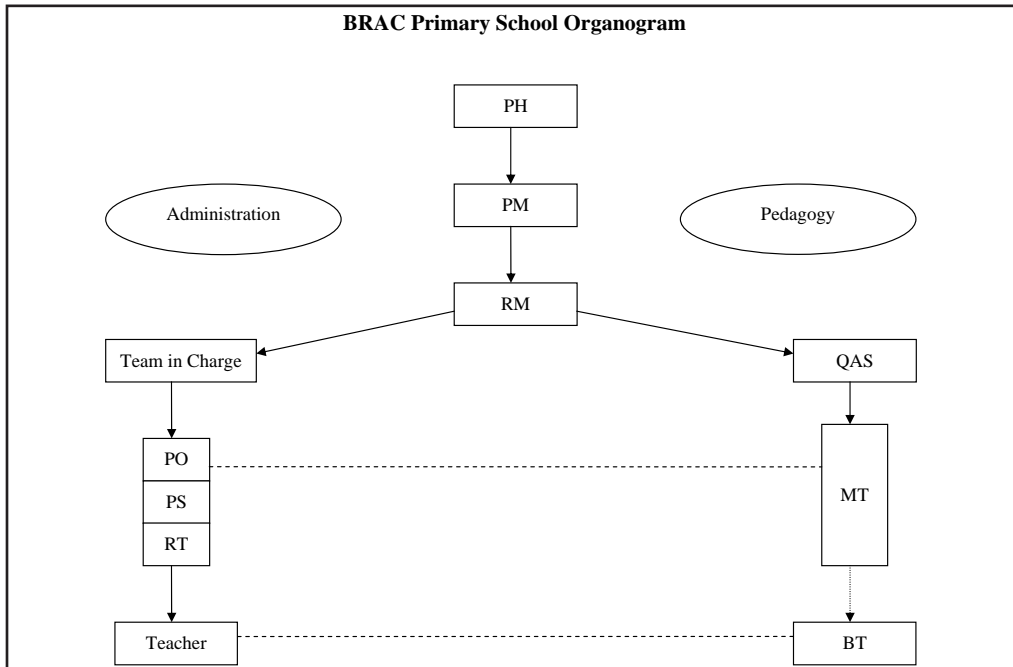
Education Officer, Upazila/Thana Education Officer, Assistant Upazila/Thana Education Officer, and the school's head teacher.

The simpler BEP system allows for three or four levels of control between the BRAC Primary School Program Manager in Dhaka and the teacher. These include regional managers, team-in-charge or area officers, program officers, and resource teachers. Similar levels of control are a sign that both the BEP and government systems are strongly hierarchical. However, at least two features distinguish them: flexibility and implementation capacity.

To become a more flexible organization, BEP created a new line of staff for pedagogical supervision. This effort is indicative of BRAC's efforts as an organization to learn and improve. It should also be noted that a significant percentage of posts in the government hierarchy remain empty, particularly at the Upazila level. In the case of BEP, all but a few administrative posts were filled and active.

The BPS management structure can be quickly established. In the early 1990s, when BPS was expanding rapidly into new areas, the full process required only about six months, including identifying out-of-school children, hiring program officers and staff, establishing a field office, selecting and training teachers, and enrolling students. Rooms were often rented from an elite family in the village, and the teacher was selected from the same or another elite family. Following the initial four-year cycle, the school and teacher can serve a second BPS cycle if a significant number of out-of-school children remain and community interest still exists. Otherwise, the school and staff move on to open another BPS in another area in need.

Program officers are at the core of BEP's management structure. They receive entry-level training both throughout their tenure, including 18 days on operational management and 24 days on pedagogical management. Officer retention is a challenge—about 50 percent will drop out during the first months of training and field experience. For those who remain, periodic training at one of BRAC's training centers exposes staff to a wider network of colleagues and helps build team solidarity, as well as provide technical and professional skills. Several of the more experienced program officers serve as master teachers, while the best teachers help conduct monthly refresher meetings as batch trainers. Resource teachers also mentor less experienced teachers and provide hands-on coaching in the classroom.



Administrative supervision is one of the BPS model's keys to success. Officers visit each school twice per week to check attendance, review teachers' lesson plans, and observe classes. Each team consolidates officer reports for an area manager. Monthly meetings include area and regional managers and head office staff to ensure that reports are substantive, comply with BEP procedures, and reach headquarters. A separate group of senior staff monitors visits a random selection of schools each month to ensure that the reports filed by field staff are accurate. They also grade schools to ensure extra attention is given to weaker schools while a team of senior quality assurance supervisors focus on improving instruction and learning.

During Phase III, BEP also offered a stipend to BPS teachers to study for the tenth grade examination, and some have gone on to complete their twelfth grade examination, which makes them eligible to apply for GPS teacher positions, according to Yusuf Kassam, Janet Raynor, Anne Ryan, and Aders Wirak in "Appraisal of BEP, 2004-2009: Towards Deepening Partnership with the Government of Bangladesh."

Each BPS has a school management committee (SMC) made up of three parents, a community leader, and the teacher. The SMC and the other parents help maintain the school and ensure the children's regular attendance. Parents' meetings are held once a month in each school to encourage guardians to take an interest in their children's education. The children's progress, attendance, cleanliness and hygiene, the

responsibility of parents toward their children, and any school problems requiring parental attention are discussed at SMC meetings facilitated by a program officer. While the system addresses fewer issues than most education projects attempt to address, it provides far more services to communities than the GPS committees achieve.

BEP's management model is effective, but it faces several challenges. BEP is not a model for helping a community develop a self-sustaining school, nor is the sustainability of the BPSs a long-term goal of the BRAC program. Rather, it provides education to underserved populations until more permanent schools are established in the catchment area. BRAC's goal is to ensure education is provided to all children. Developing the cohesiveness, trust, and discipline to run a community

school effectively is the task of years, not months. Sustainability is thus taken on by permanent schools that come into the catchment area at a later time. In *The BRAC Non-Formal Primary Education Program in Bangladesh*, Catherine Lovell and Kaniz Fatema challenge the idea that very poor, illiterate people anywhere have ever managed to organize and run their own high quality schools, let alone pay for them. In the case of BRAC, families cannot afford to pay school fees or teacher salaries and the program must be sustained through other means.

The current BEP model depends on having a critical mass of schools within a very short distance of the team office. It is not cost-effective for BEP to establish individual schools in isolated communities because a program officer's salary becomes cost-effective only after covering a minimum number of schools to which supplies can be delivered from a central office at which officers and teachers also have access to monthly refresher courses. The BEP monitoring and evaluation group is currently undertaking a study to confirm the cost-effectiveness of the approach.

Policy and Institutional Context

Despite the size of Bangladesh's indigenous NGO sector and the worldwide reputation of several organizations such as BRAC and Grameen Bank, the relationship between the government and the NGO community is frequently characterized by competition among NGOs and between NGOs and the government, according to Bishwapriya Sanyal in *Antagonistic Cooperation: A Case Study of Nongovernmental Organizations, Government and Donors Relationships in Income-Generating Projects in Bangladesh*. Bangladesh's public administration system, with its limited implementation capacity at the grassroots level and continuing reputation as one of the most corrupt countries in the world, has motivated some foreign donors to work directly with NGOs. However, Bangladesh's NGO regulation system is part of the Sedition Act, which makes accepting funds from overseas without government permission a crime. The NGO Bureau, which must approve all movement of foreign donor funds to NGOs, is at times quite obstructive. Many, if not most, government bureaucrats and senior military officers maintain that most NGOs are small, amateur organizations at best and political fronts or financial scams at worst and that unsuspecting foreign donors should be protected from them.

At the donors' insistence, General Education Project (GEP), a large multi-donor primary education project developed in the early 1990s, included a provision for supporting NGO initiatives under very circumscribed conditions. Two years before the end of GEP, the Directorate of Non-Formal Education (DNFE) was created. It focused mainly on NGO adult literacy efforts and tended to treat all NGOs as equal, regardless of their track record, scale, and transparency. As a result of corruption in the adult literacy component, DNFE lasted just five years before it was dismantled. In the meantime, the second massive Primary Education Development Program (PEDP II) was negotiated for 2004-2009 without an NGO component. Instead, the government's new Reaching Out-of-School Children (ROSC) program has been the latest proposed avenue for governmental-nongovernmental partnership.

The government indicates that it would like to coordinate all sub-sector activities, but it appears to be:

- Less experienced in and less capable of service delivery in many rural areas. The government's efforts to establish quality community schools produced a type of school in rural areas that is inferior to both BPS and GPS;
- Less transparent than some large NGOs such as BRAC in accounting for foreign donor funding. According to editors Chowdhury, Choudhury, and Nath in *Hope Not Complacency: The State of Primary Education in Bangladesh*, Transparency International reported in 2001 that corruption in education had risen to new levels and that the Bangladesh Ministry of Education is among the most corrupt ministries in a country that ranks very high on international indexes of corruption;

- Reluctant to implement its own decentralization policies; and
- Unwilling to increase the allocation of recurrent funds to the sub-sector, such that it might fill all vacant teacher and Assistant Upazila Education Officer posts in rural areas and provide the support they need.

Both local and international education NGOs in Bangladesh have become better coordinated over time. In 1996, the NGOs organized a Conference on Universal Primary Education. One of the outcomes was that the Campaign for Popular Education (CAMPE), a coalition of more than 400 NGOs involved in primary and non-formal education, launched the Education Watch Project, according to editors Abul Khair Jalaluddin and A. Mustaque R. Chowdhury in *Getting Started: Universalizing Quality Primary Education in Bangladesh*. However, the donors, NGOs, and government are still struggling to find a collaborative approach to ensuring education for all children in Bangladesh and, while students from BPS are accepted into the GPS for continued education beyond grade five, complementary programs in Bangladesh remain outside the ministry system.

Conclusions

The biggest challenge for the primary education system in Bangladesh is to improve quality and continue to reach the underserved population. BPS has grown from a 22-school pilot to encompass more than 35,500 schools and 1 million students. Twenty years of commendable efforts to deliver a quality basic education with a learn-by-doing approach to instruction has improved rural communities' learning levels but has not yet achieved the quality to which BEP aspires. A large percentage of BPS students and an even larger percentage of rural GPS students are leaving grades three through five, and a large number of those who complete fifth grade do not have sustainable literacy and numeracy skills.

Current enrollment rates exaggerate the amount of primary education being delivered, particularly in terms of learning. BPS performance on the 27 competencies assessment is indicative of the low quality of learning. While BEP undertook substantial reforms during Phase III with the two-pronged intention of providing better teaching and learning, there is still a long way to go. In Phase IV, BEP is piloting new approaches to improve education for the entire system, including the new BRAC Pre-Primary Schools (BPPSs), which are attached to GPSs. The hope is that by making GPS teachers audience to more child-friendly, interactive learning, they will begin to incorporate the teaching methods into their own pedagogy.

BPS aspires to improve relations and partnerships with the Bangladeshi government. Part of the future vision is to create a more integrated education system that allows for improved quality of education. Opportunities for collaboration include:

- Strategically expanded access by focusing on underserved areas through improved data and Education Management Information System (EMIS) information. The government can develop its capacity to collect more geographically disaggregated education data and open more permanent, official schools in underserved areas;
- Contributions by BPS and other NGO schools to the success of permanent primary schools by sharing second language textbooks and other materials;
- Development of separate measures of cost-effectiveness for hard-to-reach populations. The EQUIP2 Case Study, *Meeting EFA: Mali Community Schools*, accurately illustrates the cost of reaching hard-to-reach populations;
- Reformed teacher training institutions conveying methods more responsive to the full range of children who enroll in rural GPSs. In the short term, BRAC's regional training centers could more rapidly develop and deliver emergency training for new teachers recruited to official schools; and
- First and second grade education handled by BPSs while public primary schools with their professional teachers focus on grades three through five. This approach might be particularly

appropriate in indigenous areas where NGOs have already developed curriculum and teacher education materials in indigenous languages.

BRAC has improved access and quality education for a significant number of children in Bangladesh. The challenge that the program will face in the coming years is ensuring that it continues to assist the public school system in reaching hard-to-reach populations, while reducing dropouts, improving training for facilitators, and ensuring continued efforts are integrated into the GPS system in some collaborative and cost-effective manner.

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Meeting EFA: Egypt Community Schools

Introduction

Improved access to education in underserved areas represented a critical challenge in Egypt in the 1990s. Enrollment rates in Upper Egypt, especially for girls, were below the national average, and many small communities in the southern half of the country had virtually no schooling services. Education quality was also a national concern, and the education system was seen as in crisis. An agreement between the United Nations Children's Fund (UNICEF) and the Egyptian Ministry of Education launched the community school initiative in Upper Egypt in 1992 as a "joint venture for quality innovative education through genuine community participation," according to Malak Zaalouk on page 35 of 2004's *The Pedagogy of Empowerment: Community Schools as a Social Movement in Egypt*. The Ministry agreed to pay the salaries of teachers, provide materials, and support curriculum and teacher training. UNICEF developed a model for quality community-based education, designed to respond to the needs of Upper Egypt's underserved areas.

Rural parents in early 1990s Egypt were commonly perceived as not interested in educating their daughters. Research commissioned by UNICEF at that time discovered that parents and local religious leaders did not object in principle to girls' education in many cases and frequently expressed support and desire for it. However, the research found that communities did object to the specific conditions under which traditional education systems offered schooling, including:

- The safety of girls who had to walk to distant village schools;
- Classrooms with male or non-local teachers; and
- School hours that kept girls from contributing to their daily household economies.

Based on this research and international experience, UNICEF developed a model and implemented the community school project through local nongovernmental organizations with the intention of experimenting, nurturing, and slowly expanding. The objective was to develop a system through which innovations in community and school interactions, instructional methods, and classroom management could be tested and evaluated as a basis for learning and eventual application on a broader scale in schools throughout Egypt, not necessarily to create a large-scale project.

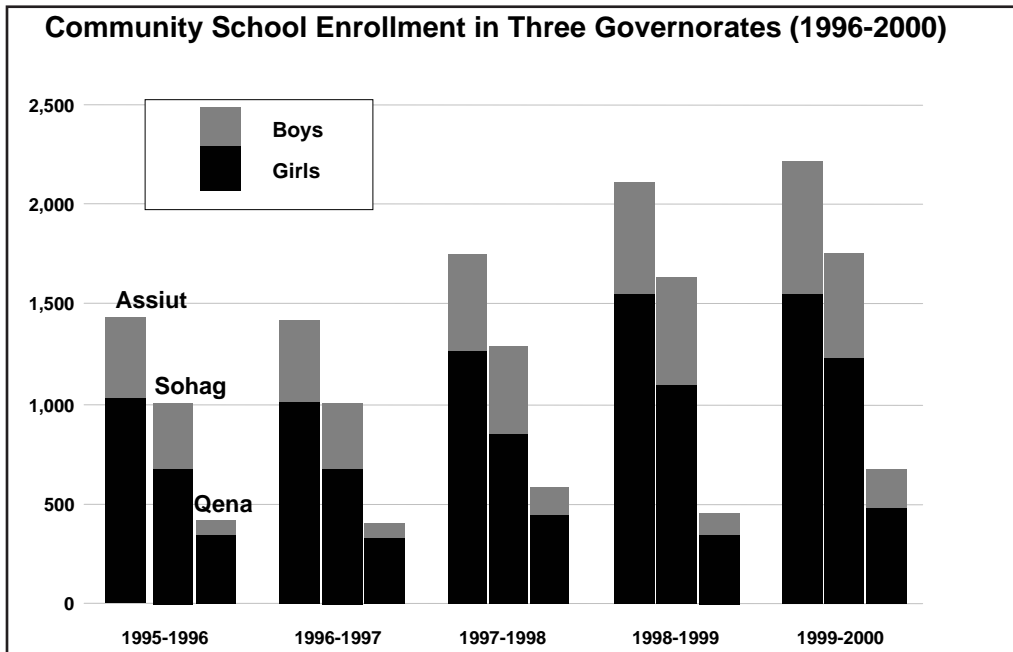
This EQUIP2 Case Study looks at UNICEF and the Egyptian Ministry of Education's joint experience in Upper Egypt during the latter half of the 1990s and examines the extent to which community schools successfully provided access, completion, and learning, especially for girls, in three Upper Egypt governorates. The cost and cost-effectiveness of the community schools are compared to government schools. Additionally, the study highlights features developed, tested, refined over time, and deemed critical to the success of the model.

Access

While education data from mid-1990s Egypt can be considered suspect in the light of enrollment rates reported at over 100 percent, Farrukh Iqbal and Nagwa Riad reported the net enrollment rate reached 83 percent for girls and 90 percent for boys in 1996-1997 in their paper for The World Bank, "Increasing Girls' School Enrollment in the Arab Republic of Egypt," presented at Scaling Up Poverty Reduction: A Global Learning Process and Conference in 2004. However, national rates do not distinguish the regions where enrollment rates were considerably lower. For example, in the Assuit, Souhag, and Qena governorates where UNICEF's community schools project was concentrated, net enrollment rates for girls, reported as 63 percent, 61 percent, and 71 percent respectively in 1996-1997 by Iqbal and Riad, were well below the national average.

Governorate-level statistics do not reveal that access—girls' access in particular—was most limited in Upper Egypt's small, rural hamlets. These hamlets are usually a long distance from a central village primary school. However, parents in surrounding villages are reluctant to allow their daughters to walk to these village schools. As a result, in certain rural areas of Upper Egypt, female enrollment rates were as low as 10 to 15 percent, according to Joseph Farrell in 2003's "Case Study: The Egyptian Community Schools Program." The UNICEF-Ministry project responded by specifically targeting small hamlets with at least 50 out-of-school children.

The pilot phase of the community schools project lasted from 1992 to 1995 and established 38 schools that served 1,037 students, 63 percent of whom were girls. This case study focuses on the project's development phase from 1995 to 1999, during which the community schools expanded to include 202 school sites, enrolling 4,656 students, 70 percent of whom were girls, according to Zaalouk in *The Pedagogy of Empowerment*.



An experimental version of the community-based schooling model was designed and implemented during the pilot phase, presenting important lessons about the capacities needed for successful implementation, the pedagogical model's utility, and the nature of partnerships between nongovernmental organizations, the Ministry of Education, and communities. The development and expansion phases of the project intended to refine the model, expand the network of schools and communities, and consolidate the partnerships critical to implementation. During the expansion phase, stakeholders reached consensus on the definition of sustainability and used program evaluations to clearly identify the model's components most critical to success and that therefore should be diffused.

The approach through which lessons learned were to be taken to scale relied not on continued expansion of the project, but on transferring the lessons and critical components of the model's success to other efforts in Egypt to expand access and improve quality. UNICEF and the Ministry of Education conceived the community schools project as a relatively small system demonstrating a pedagogical model that would work effectively with children of primary school age. When the

Egyptian government developed a program to establish one-room rural schools, the community schools project was seen as the model on which to base that approach. The UNICEF model also inspired other organizations such as CARE to implement similar community school projects.

Completion

In *The Pedagogy of Empowerment*, Zaalouk reports the community school grade five completion rate in Assuit, Sohag, and Qena at 92 percent. Although disaggregated data on fifth grade completion in Egypt is difficult to obtain, observed trends make it safe to assume that the public school completion rate in rural Upper Egypt would be considerably lower than the national rate of 90 percent reported by the World Bank in 2000. Zaalouk provides some data on primary school completion and the continuation of community school students into secondary school and beyond:

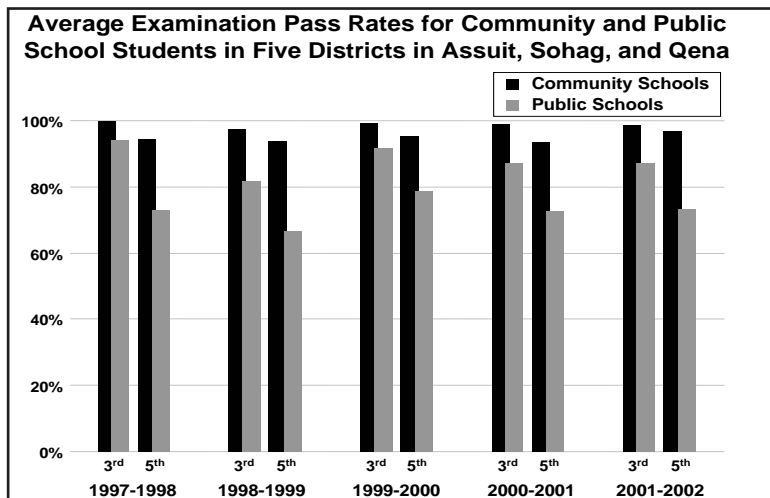
Egypt Community School Graduates from Fifth Grade (1997-2001)

1997	1998	1999	2000	2001
73	383	421	980	2,382

Zaalouk reports that in 2002, 2,393 community school graduates were in preparatory school and 241 were in secondary school, including 40 of the 1997 fifth grade graduates in their final year of secondary school.

Learning

The community schools project emphasized assuring quality education for rural children, especially girls. Student performance data reveal that the community school model was a resounding success in terms of students able to pass official Ministry of Education examinations in third and fifth grade. Zaalouk's data in *The Pedagogy of Empowerment* from 1997 through 2001 show that community school students in five Assuit, Sohag, and Qena districts consistently outperformed their public school third and fifth grade counterparts. Community school third graders passed at an average of 99 percent in 2001, compared to 87 percent in public schools in the same districts. The average pass rate for community school fifth graders that year was 97 percent, compared to 73 percent in the counterpart public schools. The following chart shows how consistently community school students outperformed their public school counterparts from 1997 through 2001.



Transformation

Beyond the community schools' education outcomes, their success has dramatically changed certain aspects of life in Upper Egypt. According to Zaalouk, children in community schools demonstrated a positive sense of self and their role as active learners. In particular, girls began to see themselves as educated, capable, and empowered. Families have begun to value children's schooling and have ceased consigning their girls to labor and chores at the expense of education. Children have become role models for their families and communities, helping adults see the importance of learning, freedom, and progress. Community school governance has also provided Upper Egypt with new decision-making processes and models of collective action.

Costs and Cost-Effectiveness

Analysis of cost-effectiveness reflects the different government, project, and local community costs for and contributions to establishing and running community schools in Upper Egypt. Available data make it possible to assess the start-up and operating costs for project schools in 1998-1999, towards the end of the expansion phase. The following table, with data from Zaalouk's *The Pedagogy of Empowerment*, shows how total costs were broken down.

Source	Category	Amount (US Dollars)
Ministry of Education	Facilitator salaries and books	\$253,172
Project	Supervision (salaries and transportation)	\$71,711
Project	Training	\$94,557
Project	Supplies	\$58,563
Project	Administration	\$3,087
TOTAL		\$431,090

Excluding land and buildings, the recurrent cost per pupil was \$114 for 187 community schools enrolling 4,208 students. Data on the cost of government schools in Egypt are difficult to locate. Zaalouk estimated national per pupil recurrent costs for public schools in 1998-1999 at \$164.

Unit costs and primary school completion and student learning data are used to compare the cost-effectiveness of community schools and public schools. The following table shows that community schools were considerably more cost-effective than public schools at producing fifth grade completers who could pass the national examination in Upper Egypt.

Cost-Effectiveness of Community Schools vs. Public Schools in Egypt

	Rural Upper Egypt Community Schools	National Public Schools
Recurrent unit cost per student	\$114	\$164
<i>Fifth grade completion rate</i>	92%	90%
Cost per fifth grade completer	\$620	\$911
<i>Fifth grade examination pass rate</i>	94%	73%
Cost per fifth grade student passing national exam	\$659	\$1,248

Due to lower unit recurrent costs and a slightly higher fifth grade completion rate, Upper Egypt community schools have a cost per fifth grade completer over 30 percent lower than the government cost per completer. Because the fifth grade examination pass rate for community schools is significantly higher than for public schools, the cost per community school student able to pass the examine is almost half of that for public schools. Since data on costs are somewhat difficult to obtain and, once obtained, often not easily analyzed, the estimations of cost-effectiveness are not meant to be definitive calculations but are indicative of whether funds invested in these kinds of projects can lead to results that are within acceptable cost limits. Even if Egyptian community schools and public schools had the exact same recurrent costs, the community schools would still be more cost-effective by nature of the higher rate at which they produce fifth grade students who demonstrate an acceptable level of learning by passing the national exam.

Critical Features

In her comprehensive analysis of community schools in Upper Egypt, *The Pedagogy of Empowerment*, Zaalouk identifies what she describes as the “pillars of the project”—the project features most important for successes in enrollment, primary school completion, facilitation of learning, and cost-effectiveness.

Community Participation

Education committees form at each school, functioning as local school boards. The school curriculum and activities focus on the community’s work and are embedded in the local culture. The community provides a school site in existing infrastructure deemed suitable for the number of children to be enrolled, determines the hours and days school will be in session, and participates in teacher selection. The school serves as a site for an integrated development approach, offering courses outside of regular school hours, including parenting classes, preschool and daycare, non-formal adolescent education, environmental education, and hygiene, health, and nutrition classes.

Because the Ministry of Education pays teacher salaries, and the Ministry and UNICEF supply materials, the communities ensure that education remains truly free for students enrolled in their schools. Community schools charge no fees, require no uniforms, nor impose hidden costs. Moreover, the expensive private tutoring ubiquitous in Egypt is absent from community schools.

Partnerships

From its inception, the Upper Egypt community schools model has relied on collaboration between UNICEF and the Ministry of Education, which has ensured the Ministry’s investment in the project’s success and sustainability—paying teacher salaries, providing supplies, participating in staff training and school supervision, and formally recognizing the community schools by issuing students official primary school certificates at the end of fifth grade. The Ministry and other education institutions helped develop a rigorous teacher training curriculum, refined the community school curriculum and pedagogy, and administered student exams and evaluations. Communities have also been essential partners by serving on education committees, playing active roles in the schools, including teaching or supervising students. Local nongovernmental organizations provide field presence for the establishment, management, supervision, support, and ongoing evaluation of schools.

Multi-Ability/Multi-Grade, Child-Centered Teaching

In community schools, children between the ages of six and 12 gain access to the primary cycle. Classes are usually limited to 30 students in a multi-age group supervised by two facilitators. Pupils

are organized according to ability and the pace at which they learn, but within the same classroom. Facilitators and teachers tailor activities to each group, allowing higher-paced students to sometimes complete the primary cycle in three years. Instruction is child-centered, and cooperative learning is widely practiced. Facilitators and children develop materials together that are used in the classroom.

The program draws on the experience, values, and inputs of an entire network of local community members, program staff, government representatives, nongovernmental organizations, and Ministry of Education staff at the district, governorate, and national level. The instructional methods are based on the best existing research on multi-grade classrooms and girl-friendly methods. According to Ash Hartwell's paper prepared for the 1997 Council for International Exchange of Scholars (CIES) Conference, "Applying What We Know about Learning to Projects: The Experience of Community Schools in Upper Egypt," school is scheduled, space is organized, furnishings are chosen, and a variety of instructional materials are developed to maximize students' opportunities for self- and peer-directed learning.

In "Case Study: The Egyptian Community Schools Program," Farrell painted a vivid picture of community school pedagogy and instructional activities. Learning is self-directed to a large extent, with students spending a significant portion of the day working individually or in small groups on self-planned projects in 'learning corners' devoted to Arabic, math, science, general knowledge, and art. Students are required to report to the entire class on their individual work at the end of each school day. A shorter portion of each day is devoted to whole class activity directed by the facilitators, individual students, or small groups, which may also involve presentations by adult community members with special knowledge in a particular curricular area. The class may also engage in discussion of a given issue or plan a presentation for the community, involving skits, songs, dances, and games.

Selection of and Ongoing Training and Support for Facilitators

Young women are recruited locally to be facilitators, with special attention paid to their capacity for innovation, creativity, and sensitivity to children's needs. They are required to have an intermediate level of education equivalent to primary plus three years of lower secondary, usually making them among the most educated women in the community. The education committee interviews candidates to select a core group and reserves to train for each class. Reserves substitute for absent facilitators or travel around to support other facilitators.

Facilitators undergo rigorous pre-service training in three phases. The initial orientation workshop is residential, lasts eight to 10 days, and introduces participants to the principles governing the community schools, including problem solving, planning, scientific thinking, and communication skills. According to Zaalouk on page 58 of *The Pedagogy of Empowerment*, participants experience "relationships that are quite different from the authoritarian formats they are accustomed to," stressing teamwork. A second pre-service residential workshop also lasting eight to 10 days addresses activity-based learning and includes subjects such as lesson planning, authentic student evaluation, creating learning activities and materials, grouping, and classroom management through student participation. The third pre-service training activity includes two to four weeks of classroom observations in existing community schools, emphasizing open-ended questions to stimulate effective student thinking and understanding.

Upon completion of the three phases of pre-service training, new facilitators are officially recognized as members of the Egyptian teaching force. They are paid by the Egyptian government based on a salary rate established within the national teacher salary grid at a level below formally certified primary teachers who have completed a program at a University Faculty of Education. Refresher training is also provided every other year and targets both community school facilitators and teachers

in government supported one-classroom schools.

In addition to their preparatory training, ongoing facilitator in-service is a continuous and intensive process. Facilitators engage in scheduled end-of-class daily meetings with their partners that provide time for self-reflection and exchange of ideas for improvement. In these daily meetings, facilitators note questions or issues to bring up at the weekly meetings with cluster supervisors, which help facilitators solve problems and plan collectively based on others' experiences. These weekly meetings often also include teachers and supervisors from the one-classroom schools in the district. Every two weeks, the facilitators in each school meet with the local school committee to get feedback from parents and community members on their work and discuss how to address problems.

In addition to ongoing in-service training, a supervisory and support system ensures the quality and continuous improvement of instruction. A field supervisory team and a technical supervisory team manage and monitor the community schools initiative, both of which supervise and direct the schools and carry out on-the-job training. These teams also handle ongoing evaluation and maintain links between the schools and communities, as well as expanding a network of affiliates who offer special expertise to facilitators, including universities and nongovernmental organizations.

Management of the Initiative

Local nongovernmental organizations manage the community school initiative at the governorate level. Each governorate has a project manager and deputy manager in addition to the supervisory staff who work at the district and village level. According to Zaalouk on page 42 of *The Pedagogy of Empowerment*, the management of the initiative “tends to be flat and highly participatory, as opposed to rigid and hierarchical.” Management and supervisory teams are trained on team building and teamwork, and evaluations are team-based. The management culture of the initiative has been characterized as a ‘living system’ with effort devoted to continuous improvement, even adopting a Total Quality Management approach in its later stages. Collaboration between the implementing organizations, UNICEF, the Ministry of Education, and various Egyptian educational institutions has enabled the project to draw on a range of technical, field, and managerial expertise, all contributing to a learning systems approach to the initiative.

The Policy and Institutional Context

The Egyptian Ministry of Education exercised notable foresight by launching the community schools initiative in 1992 in partnership with UNICEF as a response to the education crisis it recognized in the late 1980s and early 1990s. This partnership established a critical working relationship between UNICEF and the more progressive elements within the Ministry, helping to ensure success. The Ministry demonstrated its support by paying teacher salaries, providing school books and teachers' guides, contributing to the development of curriculum and teacher training programs, and assuring school feeding. UNICEF designed the model of community education, provided training for program staff, and ensured management and ongoing support through its partnerships with local nongovernmental organizations.

By agreeing to collaborate fully with the project and by assuring from the beginning its financial and institutional contribution to the program, the government effectively cleared space in the educational landscape for this experiment in community-based schooling. The success of the Egyptian community school initiative has triggered and facilitated an informed reform dialogue over the past decade. Lessons learned have not only included how to effectively provide education to children in remote areas and target girls, but also how to engage students, teachers, and communities in ongoing, active learning and democratic decision making.

Not only was this effort structured as a partnership from the beginning, it was also recognized as a ‘seed bed’ for reform, rather than a scaleable operation. The project emphasized disseminating lessons learned and establishing best practices for new and existing initiatives to increase widespread impact, rather than expand the project itself. On pages 173-174 of *The Pedagogy of Empowerment*, Zaalouk identifies six pieces of institutional infrastructure in Egypt that are critical to dissemination and sustenance of the community schools’ impact:

- The Education Innovation Committee shaped education policy to support innovation and acted as a think tank and source of technical support for the implementation of quality standards. Several key ministerial decrees to promote education innovation are attributed to the Education Innovation Committee’s work. When the government chose to launch its one-classroom schools, the Education Innovation Committee linked the community schools’ experience to the model’s development. The committee also communicates the community schools’ lessons to mainstream Egyptian elementary schools through the development and implementation of education standards.
- The Ministry of Education’s nongovernmental organization department provides an official channel to promote and set up partnerships between government and civil society actors supported by external or internal donors.
- The Center for Curriculum and Instructional Materials Development draws on the experience of teachers making instructional materials that successfully promote active learning in their classrooms. It puts together kits of materials and teachers’ manuals for use throughout Egypt.
- The National Center for Examinations and Educational Evaluations has worked with the community schools initiative to develop indicators of effective schools that serve as guidelines for school accreditation.

The general strategy was never to directly expand the community schools system. The objectives were to keep the system relatively small, maintain and evaluate its quality, and diffuse lessons first to the one-classroom schools system, followed by the mainstream primary school system.

An agreement with the Canadian International Development Agency (CIDA) provided funding to expand the community schools system from around 200 to a maximum of 300 schools in the original three governorates of Upper Egypt. The agreement also facilitated linkages between community schools and the one-classroom schools in those governorates. The project includes a provision for transferring 25 well-established community schools from UNICEF to the Egyptian Ministry of Education every year, with UNICEF adding 25 new schools each year to its system, therefore maintaining the target maximum of 300 schools.

Thus, the current phase of the community school initiative includes ongoing operation of schools, direct transfer of schools to the Ministry system, and continued diffusion of lessons learned. For example, the basic pedagogical model is influencing other areas in Egypt through additional donor-supported efforts. International donor-supported programs have included part of the community schools pedagogical model in their assistance to the Ministry of Education, including major projects supported by the World Bank/European Community, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United States Agency for International Development (USAID), and CARE.

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Meeting EFA: Ghana School for Life

Introduction

School for Life is a nine-month education program for eight to 15 year olds living in Ghana's rural Northern Region, where there is very little access to primary education. School for Life teaches local language literacy, numeracy, and general academics equivalent to three primary school grades in nine months. It was established in 1994 by the Ghanaian Danish Communities Association (GDCA) with support from the Dagbon Traditional Council, The Ghana Friendship Groups in Denmark, and the Ghana Education Service (GES) in the Northern Region. Approximately 70 percent of School for Life students continue on to formal primary school at fourth grade. By 2004, it had established operations in eight districts and four languages in Ghana's Northern Region.

The Northern Region of Ghana

The Northern Region accounts for almost a third of Ghana's land area and is inhabited by about 10 percent of its population, with a population density of less than 25 people per square kilometer. Poverty is endemic in Northern Ghana, and the people face formidable challenges with regards to water, food, and livelihood. With limited access to potable water and few economic opportunities, younger people, especially girls, have few chances to find productive work. As a result, many leave their home villages. A significant percentage of girls aged 12 to 18 years migrate from Savelugu and Gusheigu Districts in the north to urban areas to earn money for their marriage dowries. Foster-parenting by extended relatives and traditional gender roles and responsibilities also pose problems.

GES statistics and the 2000 Ghana Population Census indicated that in 2002, the Northern Region literacy rate was lower than 5 percent and 40 percent of school-age children, mostly girls, were out of school. The great majority of children do not complete the compulsory nine years of primary school and consequently do not attain a basic level of literacy. The Northern Region receives only 4 percent of recurrent budget expenditures, although it has 10 percent of Ghana's total population.

Effectiveness

This case study analyzes three dimensions of effectiveness in Ghana's School for Life: access, completion, and learning.

Access

It is not enough that children enter school. The important thing is that they stay long enough to gain the knowledge and competencies of basic education. Ghana's gross enrollment rate has increased from 75 percent to 81 percent over the past decade, although it has leveled off since 2000. From 1990 to 2000, the public school gross enrollment rate for first through sixth grade in Ghana's Northern Region rose from 51.4 percent to 59.7 percent, with enrollment growth slightly ahead of school-age population growth. According to the Ghana Ministry of Education 2000 Education Management Information System (EMIS) Basic Education Statistics and Planning Parameters and the 2000 Ghana

Population Census, Northern Region gross enrollment in first through third grade was 69 percent at approximately 131,000, but only 59 percent for girls in 2000.

School for Life reaches approximately 25 percent of the villages in the districts where it works, targeting those locations where there is no formal school or where there is very low enrollment in the public primary school. From 1996 to 2003, School for Life enrolled 50,000 children, half of whom were girls. In 2000, School for Life's annual enrollment was just over 9,000 pupils, which, if added to the public school enrollment rate, would raise the regional rate from 69 percent to 83.3 percent. Moreover, School for Life attendance averages 90 percent, whereas USAID/Ghana research estimated public school average daily attendance in the Northern Region at only 75 percent of enrolled students in 2002.

School for Life Coverage in the Northern Region of Ghana

District	Communities Covered	Communities in District	Percentage Covered by School for Life
Gusheigu-Karaga	151	415	36.4%
<i>Nanumba</i>	<i>64</i>	<i>350</i>	<i>18.3%</i>
Saboba-Chereponi	76	408	18.6%
<i>Savelugu-Nanton</i>	<i>97</i>	<i>350</i>	<i>27.7%</i>
Tamale	89	350	25.4%
<i>Tolon-Kumbungu</i>	<i>57</i>	<i>350</i>	<i>16.3%</i>
Yendi	128	316	40.5%
<i>Zabzugu-Tatale</i>	<i>105</i>	<i>350</i>	<i>30.0%</i>
TOTAL	767	2,889	26.5%

Completion

Even if children enter school and complete a cycle, little is gained unless they have actually learned to read, write, calculate, and use these tools to solve real life problems. According to Ministry of Education 2003 Education for All (EFA)-Fast Track Initiative (FTI) statistics, Ghana's national survival rate to sixth grade is 66 percent. In the Northern Region, the survival rate from first to third grade is 59.4 percent, with 47.9 percent reaching fourth grade from first, and only 35.5 percent reaching sixth grade.

Of those students who enter School for Life, more than 91 percent complete the nine-month program, equivalent to first through third grade, with equal rates for boys and girls. Of those who complete the School for Life program, 66 percent overall and 68 percent of girls continue on to fourth grade in public schools. Much of the retention is credited to School for Life's short duration of only nine months.

Learning

The third dimension of effectiveness is evidence of learning, as reflected by the achievement of minimum levels of competency in reading comprehension, writing, and numeracy. In 2003, GES randomly surveyed 367 pupils from 17 School for Life classes in eight districts. According to the February 2004 *School for Life End of 8th Cycle Report*, 51.8 percent read

with comprehension and wrote and calculated with mastery, 29.4 percent read and calculated well but wrote only a few words, and 18.8 percent read and calculated with difficulty and were not able to write properly. Thus, 81.2 percent of School for Life pupils met minimum standards for literacy and numeracy at third grade level after a nine-month cycle.

In the absence of a standardized national test at third grade level, there is no means to directly compare learning in School for Life to learning in public schools. However, the Criterion Referenced Test (CRT), given to a 10 percent national sample of sixth grade students each year, provides a language and mathematics learning performance benchmark for primary schools. In 2003, only 8.7 percent of the public school sixth grade students tested achieved minimum competency in English. Although CRT is not a literacy test, the results imply that as much as 90 percent of sixth graders do not perform at the minimum level of reading. This is in contrast to the 81.2 percent of School for Life pupils who are able to read in their own language with comprehension at a third grade level.

Given that the language of instruction in Ghanaian public schools is English, School for Life students who are taught in local languages and move on to fourth grade might be predicted to perform poorly in public school. However, Ministry of Education and GES Performance Monitoring Tests show that School for Life graduates perform in the upper 50 percentile in English and mathematics. This reflects the School for Life assertion that functional literacy in the mother tongue provides a strong platform for acquiring literacy in a second language. Teachers in Savelugu District, where there are a significant number of School for Life students transitioning to the formal public school system, indicated that School for Life students were able to transfer their literacy skills from local language to English and were in many cases performing much better than students who only had previous exposure to the formal school system. According to Leslie Casely-Hayford in *Reaching Underserved Populations with Basic Education in Deprived Areas of Ghana: Emerging Good Practices*, published by CARE in 2003, some parents and education officials in School for Life communities even recommended that all pupils attend School for Life before entering the formal school system.

Field reports from School for Life indicate a very high proportion of total class time utilized for teacher-learner interaction and literacy and numeracy practice. Lessons focus on discussion and representation of issues and topics directly relevant to the communities in which the students live. In contrast, daily teacher attendance in public schools has been documented at less than 75 percent and only 30 percent of the school day is used for building language and numeracy skills. In 1998, a United Nations Children's Fund (UNICEF) ChildScope Project three-day rapid assessment of teacher time on task in nine schools in the Afram Plains District of Ghana's Eastern Region found that only 16.4 percent of teachers were actually in the classrooms during scheduled lessons.

Costs: School for Life vs. Public Primary School

This section compares the recurrent per-pupil, startup, and capital costs for School for Life and public schools. Annual and sub-regional variations in budget and expenditure report estimates, which are not fully audited, pose a challenge to exactitude, but consistency over

time and examination of cost patterns lends some reliability.

The Ministry of Education and GES do not report annual budgets and expenditures regionally, nor break out costs for just the first three grades of primary school. For comparison purposes, per-pupil public school operational costs based on the national average for the full six grades of primary school are used here. Given that unit costs for first through third grade are likely lower than for fourth through sixth grade, with lower pupil/teacher ratios and a higher percentage of qualified teachers, the national public school per-pupil costs are likely marginally higher than the actual public school per-pupil costs for first through third grade in the Northern Region. However, this is offset by the fact that public schools would have to increase incentives and support for teachers and considerably raise per-pupil costs to effectively extend to the Northern region's rural communities.

Annual Recurrent Per-Pupil Costs

From 1998 to 2003, annual School for Life budgeted operating costs averaged \$349,020 for an enrolment of 9,000, or approximately \$39 per pupil. Of this, incentives for the facilitator amount \$2.45, instructional materials and texts cost \$10, supervision and staff training are \$14.50, and management and operations (e.g., rentals, fuel, overhead) come to \$11.70. There are no direct tuition costs to parents, and other costs are kept to a minimum with no fees, books to buy, or uniforms.

Profile of School for Life Recurrent Costs (2003)

Operating Costs	Amount Per Student	Percentage of Total
Teacher honorarium/incentives	\$2.45	6.3%
<i>Textbooks</i>	<i>\$6.90</i>	<i>17.8%</i>
Other learning materials	\$3.12	8.1%
<i>Supervision</i>	<i>\$10.75</i>	<i>27.7%</i>
Continuous staff training	\$3.85	9.9%
<i>Other operating costs</i>	<i>\$11.70</i>	<i>30.2%</i>
TOTAL	\$38.74	100%

The most striking feature of this profile is the very low cost for teachers. Whereas in public schools teacher salaries and benefits consume over 90 percent of the recurrent budget, School for Life facilitators are volunteers, receiving a small amount from the program each month at about \$7 as an incentive, representing only 6.3 percent of the budget. It is reported that they also receive support from the community, although this has not been documented or analyzed. Significantly, 36 percent of the budget is allotted for supervision and ongoing training, representing a considerable level of activity and support.

Startup and Capital Costs

Startup costs, including facilities, vehicles, curriculum development, materials, community engagement and radio campaigns, and local and international consultants totaled about \$1.3 million over the five-year period.

School for Life Startup and Capital Costs (1998-2003)

Item	Cost
Classrooms and infrastructure	\$706,756
Vehicles and motorcycles	\$216,216
Teaching and office equipment	\$50,000
Community mobilization and radio	\$94,600
Curriculum development—new languages	\$40,540
Consultancies—local and international	\$114,864
SUBTOTAL	\$1,222,976
Community contributions and renovations	\$102,976
TOTAL	\$1,325,341

Community Contributions

Reports from field visits indicate that communities participate in School for Life by providing land, selecting sites and teachers, and setting the school schedule. Community members are less active when it comes to providing labor and materials to set up schools. As an indicator, the *School for Life 8th Cycle Completion Report: 1 July 2002 - 30 June 2003* states that the community contributed an estimated \$45,000 to the completion of 21 classrooms during that one-year period. These startup and capital expenditures supported a program of approximately 9,000 students per year at a total per-pupil cost of \$135, excluding the contributions from communities in order to more accurately compare program costs between School for Life and public schools. Assuming that these inputs have an average life of 10 years, the annual per-pupil development cost would be \$13.50.

Recurrent Per-Pupil Costs

According to the Ministry of Education's Education Sector Development Project, as reported in Francois Orivel's *Strategies for Financing the Education Sector*, published by GES in 2002, per-pupil annual recurrent unit cost for public primary education in 2001 was as follows:

Public Primary Per-Pupil Annual Recurrent Costs (2001)

Wage Bill	\$45 million
Other Recurrent	\$9.5 million
Total Recurrent	\$54.5 million
Number of Students	2,021,196
Recurrent Unit Cost	\$27

Ghana's 2004 EFA-FTI proposal shows a total of approximately \$78.389 million for salaries and \$35.218 million for all other recurrent expenditures, including donor funding. With a total estimated recurrent expenditure of \$113.5 million for an enrollment of 3,278,236 public school pupils, there is an annual cost of \$34.60 per pupil. The major reason for the increase in the per-pupil cost is the increase in teacher salaries, leading to a sharply higher wage bill.

Capital Costs

The capital costs for public primary schools involve classrooms, offices, storage space, and latrines. In remote areas, governments budget for, although they do not always provide, teacher bungalows, usually in blocks that can house up to four teachers. According to Orivel, the standard cost of a six-classroom school with a latrine is \$51,331. A four-teacher bungalow with a latrine costs \$38,250. As the average pupil/teacher ratio is 33, a six-classroom school serves 198 students. The capital cost per student is \$452.

Cost-Effectiveness

The analysis of cost-effectiveness is based on a comparison between School for Life and public primary schools on the three cost performance dimensions:

1. Access, reflected by the annual recurrent per-pupil cost
2. Completion, reflected by the expense of a pupil completing third grade equivalency
3. Learning, based on the percentage of pupils who achieve a minimum measurable level of competency at grade level

The cost-effectiveness of School for Life relative to public schools in Ghana is illustrated in the table below:

Cost-Effectiveness of School for Life and Public Schools

	ACCESS <i>Recurrent Unit Cost</i>	COMPLETION <i>Annual Recurrent Cost x Years in School/Completion Rate</i>	LEARNING <i>Completion Unit Cost/Percentage of Pupils Meeting Minimum Literacy Standards</i>
School for Life	\$39	\$43	\$53
Public School	\$27	\$135	\$1,500

It is important to note that although the annual recurrent unit costs for School for Life is slightly higher than the national average for Ghana's public primary schools, School for Life operates in areas where public schools have not been able to reach pupils and where, if they were to operate effectively, unit costs would undoubtedly be higher than the national average listed here. The relative efficiency of the School for Life program becomes evident when comparing cost of completion. Since School for Life only operates for nine months and has a 91 percent completion rate, it is more than three times as cost-effective than public schools in terms of completion.

The huge difference between School for Life and public schools in cost per learner meeting minimum standards is due to an 81 percent rate of literacy for School for Life, compared to a 9 percent minimum competency level on the CRT English language test in public schools. It is arguable that if only 9 percent of public school sixth graders were proficient, even fewer third graders would meet minimum standards, making the figure \$1,500 an underestimate of the cost of learning for third grade in public schools.

Critical Features of the School for Life Model

The School for Life Executive Board includes representatives of GDCA, the Ghana Friendship Groups in Denmark, the Danish International Development Agency (DANIDA), and GES in the Northern Region. The Executive Board provides policy guidance and appoints senior staff at the regional and district levels. In its statement of purpose and principles, School for Life espouses a holistic approach to education and socioeconomic development, designing curricula that empower people to improve all aspects of their situation.

School for Life aims to develop in children skills for critical thinking and promotes active participation in the democratic process. School for Life builds synergy between the learner, the classroom, the home, and the community to facilitate mutual respect and understanding between sexes, ethnic groups, generations, and social groups.

School Organization

School for Life usually has one class within a single community or village. The pupil/teacher ratio may not exceed 25 to one, and students in a single class range in age from eight to 15 years old, with no determination for grade. All pupils study the same topics, with the older or more advanced helping others. In contrast, public school class size varies greatly, with Northern Region lower primary teachers often instructing more than 40 pupils. In communities with more than 25 children who want to enroll in School for Life, older students are taken first, followed by younger students over the following years until essentially all the children in the community have been enrolled.

Classroom arrangements are traditional with one teacher, a blackboard, and 20 to 25 children seated in chairs or on mats.

Schedule

School for Life sessions last nine months each year, from October to June, with July through September free for harvesting and planting in the farms. Classes are held each afternoon for five days a week, usually leaving free one market day and one religious day—Fridays in Muslim communities and Sundays in Christian communities. Daily classes last for about three hours, with time off for important community events like funerals and holidays.

The school day includes time for sports, handicrafts, music, and dance, because art, culture, creativity, and physical fitness are important parts of children's lives. Classes even compose their own School for Life theme songs to enliven the tasks of teaching and learning.

Volunteer and Community-Based Facilitators

Facilitators are recruited directly from the communities in which they live. Instead of depending on formally trained teachers who are often difficult to attract to rural areas, facilitators are nominated and recruited by the communities themselves. Facilitators are preferably community development workers in whom the community has confidence. School for Life staff encourages the communities to nominate female facilitators to act as role models for girls. Facilitators mostly volunteer their time and are compensated with

only an annual incentive equal to about half the price of a bicycle and monthly ‘soap-money.’ Communities also contribute food, small amounts of cash, or household labor as payment.

Facilitators initially receive a comprehensive three-week GES-run in-house training, complemented by refresher courses every three months at various district centers. Trainers are instructed in the School for Life approach and teach in the facilitator trainees’ local language. Guest trainers also conduct sessions on various topics. After some years of service, facilitators have opportunities to further their education, for example by supporting potential teachers to gain formal, college-required teacher qualifications. School for Life supervisors also visit classes at least once per month to give facilitators on-the-spot training. Regular in-service training reinforces new skills sets, improves instruction quality, and helps rekindle the facilitators’ commitment.

Local Language Textbooks

The textbook to pupil ratio is one to one. Language instruction follows a learner-centric sequence emphasizing phonetics. A comprehensive and detailed teaching manual in local language guides the facilitator through the literacy and numeracy curriculum so that they are trained in the language in which they will teach. Teaching and materials are developed in the languages spoken within the program communities (e.g., Dagbani, Likpakpaain, Ncaam, Anufo). The communities choose the language of instruction most suitable for the class. English, however, is not offered. School for Life also provides communities with a mini-library of extra local language texts to further sustain learning impact after program close.

Student-Teacher Relations

School for Life encourages a friendly and open relationship between teachers and students. Teachers encourage pupils to speak up, ask questions, and engage in discussions, which is simplified by conducting class in a local language. Compared to public schools and according to observation, School for Life classrooms have a far higher level of participation, including oral readings from textbooks followed by group discussion. In addition to facilitating literacy and an easy transition to English as a second language, mother tongue instruction builds self-esteem and permits engagement of the larger community in classroom pursuits.

Curriculum

The School for Life curriculum does not follow the national curriculum, which relies on English as the medium of instruction and includes seven subjects, one of which is a Ghanaian language, and includes grades. School for Life curriculum includes only three areas of instruction—language, mathematics, and environmental studies—all three of which are integrated into each lesson. The themes of each lesson include familiar issues like livestock, hygiene, sanitation, and local geography. The texts facilitate classroom activities that include practice with theory. School for Life encourages students to reflect on classroom lessons at home and draw on their home experiences for their studies.

Everyday objects like seeds, pebbles, farming tools, and basket materials, which are familiar and in regular supply, become teaching aids. Cultural touchstones like stories, traditional

games, plays, and songs, are used as the knowledge base for classroom instruction, often transferred to audiocassettes and other media for greater permanence. Functional literacy refers to the application of achieved knowledge. Active learner participation, focus on daily community-level activities, and learning by doing are major components of School for Life's pedagogic approach.

Local Committees

School for Life conducts orientation seminars for communities before establishing new programs, often with the support of the Department of Community Development (DCD), highlighting the importance of education in community development. Community members are engaged in the development process as they identify their facilitator and form local School for Life committees prior to applying for a new class. School for Life committees include three women and two men, among whom is usually a representative of the chief, local assembly, or women's organizer. The local committee formally applies for the School for Life literacy program and is responsible for supervision of day-to-day classroom monitoring, making decisions, tracking attendance, and organizing local support for the classroom facilitator. The makeup of the committee is determined by the larger community, who are regularly involved in class instruction on such traditional topics as crafts, gardening, drama, and dance.

Government Policy

In 2003, the Ministry of Education, following an in-depth education sector review and in consultation with development partners and stakeholders, formulated a comprehensive Education Strategic Plan. The plan explicitly includes complementary education programs as a means of reaching the EFA goals of access and equity. Under the policy goal Increase Access to and Participation in Education, the Education Access Strategies 6 and 7 are to "Encourage the Private Sector, CBOs, NGOs, FBOs and IGOs and Development Partners," "Support hard-to-reach children through complementary/alternative education programs," and "Design and implement programs for the integration of complementary schools with formal schools." This is Ghana's first policy acknowledging and encouraging complementary education models for underserved areas.

School for Life advocates for various policy issues with the overall aim of drawing from its practical experience to improve access to quality basic education in Ghana:

- Promotion of School for Life methodology in formal schools
- Promotion of mother tongue teaching in formal schools
- Production of literacy/school materials in local languages
- Establishment of schools in remote, sparsely populated areas where School for Life has a cohort ready to move to grade four
- Adoption of alternative/flexible approaches to education for hard-to-reach children and communities (e.g., flexible calendars, no school uniforms)
- Use of rural volunteer teachers in formal schools to serve the most deprived areas and assist trained teachers in overpopulated schools
- Promotion of girls' education and gender equity in general
- Promotion of free education and discouragement of fee collection—Ghana eliminated school fees in 2005 using capitation grants

- Encouragement of district assemblies to become responsible for out-of-school children and initiate measures to sustain School for Life impact

Beginning in 2004, USAID has supported expansion of School for Life through the Education Quality for All (EQUALL) Project. The program has moved to two new districts and added two new languages in the Northern Region.

Policy Issues

As School for Life expands and its influence grows, a number of policy issues emerge and are currently a matter of consultation and review at local and national levels.

Language

One of the most important elements of School for Life's success is instruction in local languages. Policy at the national level places importance on learning and using English even before grade 4, though this is seldom accomplished outside urban centers. School for Life demonstrates how education systems can overcome difficulties caused by multiplicity of local languages, the lack of language-competent teachers, and the lack of appropriate reading materials. Nonetheless, both the Ministry of Education and the general public tend to view acquisition of English as the purpose of schools because examinations are conducted in English. Pressures to introduce English before literacy skills have been developed continue.

Facilitators

It is incredibly difficult to post and keep trained teachers in remote and rural villages. Moreover, formally trained teachers seldom know or can teach in local languages. Communities, as a prerequisite to starting a School for Life class, identify, facilitate training of, and support volunteer teachers who already have local language skills. The policy issue is whether these volunteer teachers can become legitimate and qualified teachers and elevate their status. Negotiations between the Ministry of Education, EQUALL, and School for Life yielded a distance education program for the volunteer teachers to enter teacher training colleges or take part in distance education modules. The volunteer facilitators policy implemented by School for Life also allows accredited teachers to focus less on early primary grades and offer their services to higher grades where English is the language of instruction and a shortage of skilled, qualified teachers further complicates student retention issues.

Sustainability and Expansion

Virtually all of the financing necessary to support and expand School for Life comes from external sources like DANIDA and USAID. While Ghana's Ministry of Education endorses the program and sees it as an important element in meeting its Education Sector Plan targets for access and quality in the Northern Region, it does not expend public funds to support it. The question remains whether the government only sees such programs as acceptable as long as they are financed outside the public budget. If there were a decline in external funding, would that mean a contraction or collapse of the program? The policy issue is whether public funds can be used to support complementary education initiatives

that demonstrate effectiveness and whether the government can manage such a grant program so as to maintain, if not enhance, that effectiveness.

Acknowledgements

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Meeting EFA: Guatemala PRONADE

Introduction

In the late 1990s and early 2000s the Guatemalan education system was failing. More than six million adults—those age 15 and higher—were illiterate with an annual increase of approximately 83,000 according to Fernando Rubio. The majority of this new illiterate population was made up of children who did not have access to education.

In December 1996, the Government of Guatemala and the Union Revolucionaria Nacional Guatemalteca (URNG) signed the Peace Accords, an important component of which included the transformation of the country's education system to address both social and economic inequalities as noted in Maria Elena Anderson's 2001 paper. The Accords stipulated that education should be a means to transmit Guatemalan values and knowledge so the Accords promoted integration of multicultural values into the educational curriculum.

Anderson also mentions the restructuring of the education system, called for in the Accords, included a 50 percent increase in the education budget relative to 2005 as a percentage of GDP, at least three years of primary schooling to all 7-12 year olds, and an increase in literacy to 70 percent by 2000. The focus of the restructuring effort in education was to deconcentrate, decentralize, and simplify educational administration. During the restructuring process, 200 positions were eliminated and nearly 400 administrative staff was laid off, 124 of which were reassigned—some to schools.

Primary education in Guatemala is geared towards children aged 7-12, and to the government's credit, concerted efforts to reach targets set under the Peace Accords, have helped increase enrollment in primary education by approximately 26 percent from 1996 to 2000—half of this increase was a result of enrollment in Guatemala's Programa Nacional de Autogestión para el Desarrollo Educativo (PRONADE) program.

In 1992, prior to the Accords, the government of Guatemala through the Ministry of Education (MINEDUC) had already begun to focus efforts on increasing access to education in remote areas. By 1994, the government had developed and implemented PRONADE, whose purpose was to collect information on rural populations, provide access to approximately 250,000 additional children not being reached by the education system, and form parent-community committees. In 1996, as part of the restructuring process, the government reoriented the role of PRONADE to focus solely on increased access to and quality of education. A formal legal mandate was established with the government under the law 24-97, placing PRONADE under the arm of MINEDUC. Today, the mission of PRONADE is to assist the Ministry of Education to increase access to and quality of education in rural areas by providing financial resources to organized communities. PRONADE seeks to create a more participatory form of education that is responsible to local needs, including the socio-cultural and linguistic necessities of rural communities.

PRONADE schools are government charter, or self-run (i.e., autogestión), schools while traditional government schools are founded by the state. Teachers in the traditional government schools are paid by the state directly, while in PRONADE schools, Comites Educativos (COEDUCAs) hire, fire, and pay teachers with government funding. Both sets of government schools also have parent associations that manage funds for materials, food, and administration.

PRONADE schools are located primarily in rural, indigenous communities. COEDUCAs from these communities receive funding directly from the Ministry of Education to administrate the schools. Four criteria provide the basis for the establishment of a PRONADE school:

1. The community must locate a site and demonstrate the ability and interest in managing a school. Communities must be able to form COEDUCAs to serve as the local management and decision-making authority for their schools.
2. The community must be located at least three kilometers from the nearest government school, thus targeting hard-to-reach communities.
3. The community must have at least 25 primary-aged students ready to enter school.
4. The community must not have any teachers already on government payroll.

PRONADE is implemented in three stages: community identification; organization and legalization of the COEDUCA and establishment of a Board of Directors; and follow-up services such as training. The approximate time to establish the COEDUCA, obtain legal status, and complete training is three to five months.

The funding from the Ministry of Education covers teacher salaries, learning materials, and school snacks. Financing for PRONADE schools is contingent on demonstrated community participation in school management including, but not limited to, hiring teachers, setting the school calendar, and establishing a parent-run school committee.

Over the past decade, PRONADE has evolved from a small pilot program reaching 19 communities in Chimaltenango to a nationwide program that now engages more than 4,631 PRONADE schools and more than 445,000 pre-primary and primary age children as shown by the World Bank and MINEDUC. According to Di Gropello's 2005 research for the World Bank, PRONADE is one of the most proactive managerial, administrative, and financially decentralized activities undertaken in Latin America. The program has empowered isolated rural communities to administer and manage schools, and the number of hard to reach children who now have access to education has more than tripled. This case study examines the impact of PRONADE community schools in Guatemala from 1996 to 2005.

Impact of Community Schools: Access

Access to primary education in Guatemala has expanded rapidly since 1985. Gross enrollment rates (GER) have risen from 77.9 percent in 1990 to more than 106 percent in 2002. Net enrollment rates for primary education have matched increases in the GER, rising from 64 percent in 1990 to 87.3 percent in 2002 and 89 percent in 2003. As noted above, between 1996 and 2000 the net enrollment rate increased by 26 percent, half of which can be attributed to PRONADE.

The number of students enrolled in PRONADE schools has risen dramatically since 1996 when the program began with approximately 27,730 students. By the year 2000, that number had risen to 294,041 students. In 2005, initial enrollment estimates place 455,185 students in PRONADE schools. Students enrolled in the PRONADE schools accounted for approximately 15 percent of the primary enrollment nationwide in 2005 according to the World Bank.

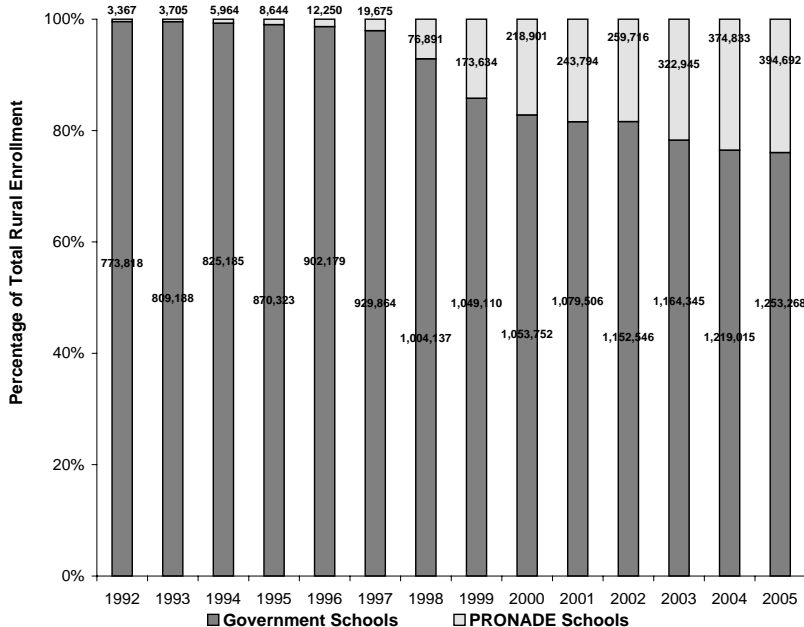
The number of schools and teachers under the PRONADE system has also significantly expanded. According to MINEDUC, by 2006 there were more than 4,600 PRONADE schools, approximately 11,545 primary level teachers, 2,284 pre-primary level teachers, and more than 445,000 students compared to 477 schools, 564 teachers, and 27,730 students in 1996. The following table shows PRONADE's coverage from 1996 to 2005.

PRONADE Coverage

Year	Schools	Students	Teachers	Joint Directors	Instituciones de Servicios Educativos (ISEs)
1996	477	27,730	564	N/A	N/A
1997	900	64,161	1,095	N/A	N/A
1998	2,117	124,240	3,011	N/A	N/A
1999	2,815	221,739	6,777	2,815	24
2000	3,437	294,041	9,300	3,437	16
2001	3,423	310,119	10,091	3,423	17
2002	3,419	321,629	10,560	3,419	19
2003	4,162	386,038	12,644	4,114	26
2004	4,555	445,003	14,579	4,555	20
2005	4,633	455,185	14,955	4,633	N/A

The PRONADE community schools contribute to increased access to education in Guatemala, by addressing the major constraints to access. These restrictions include the distance students have to travel, the economic roles children play in their families, and the perceived relative value of formal education. The figure below illustrates the rapid growth of PRONADE schools in rural areas. Access to education remains more difficult for girls, as there were approximately 5 percent more boys enrolled in primary education than girls in 2003. This number was higher in rural regions. In fact, for every 100 girls that enroll in the Guatemalan education system, only 27 make it to Grade 6. According to 2002 studies by GEMS and WID Tech, Guatemala’s access issues tend to be similar to those other countries; parents will not allow girls to walk or travel as far to school, girls are needed to help tend to the family, and girls are far more affected by cultural beliefs about the value and appropriateness of education.

Rural Enrollment: PRONADE and Traditional Government Schools, 1997-2005.



Impact of Community Schools: Completion

While the Guatemalan government has improved access to school, persistence in and completion of primary school remain pressing concerns. In 2002, for every 100 school-age children eligible to enroll in primary education, 90 students enrolled in Grade 1; 49 completed Grade 3; and 37 were promoted to Grade 6. Of the original 100 students who were eligible to enroll, only 15 will make it to secondary school and of those 15, 10 will complete secondary education. In terms of urban and rural enrollment, for every 100 students, 70 students complete Grade 3 in urban schools compared to 47 in rural regions while 62 students complete Grade 6 in urban areas compared to 29 in rural schools.

The number of years that students are behind grade-appropriate age levels is one of the major challenges faced by education in Guatemala. On average, students in Guatemala start Grade 1 at age 7.9—more than a full year behind the grade-appropriate age. By Grade 3, students are on average 2 years behind the grade appropriate age and about 0.8 years behind Grade 6 age appropriate enrollment. However, MINEDUC indicated in 2007 that this age gap is limited because the students who are repeating—and hence aging—have increasingly dropped from the formal education system by Grade 6. It is important to note that as the quality of education has generally improved over the past six years, the gap has decreased from 0.98 to 0.80 in Grade 1 and from 0.82 to 0.73 in Grade 6. The table below illustrates these age differences.

Average Age by grade in primary and years behind appropriate grade age

Year	Average Age Per Grade					
	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
2000	7.98	9.29	10.27	11.15	11.98	12.82
Years above age appropriate for grade	0.98	1.29	2.27	1.15	0.98	0.82
2001	7.93	9.21	10.25	11.15	11.99	12.82
Years above age appropriate for grade	0.93	1.21	2.25	1.15	0.99	0.82
2002	7.91	9.17	10.22	11.18	12.03	12.85
Years above age appropriate for grade	0.91	1.17	2.22	1.18	1.03	0.85
2003	7.91	9.17	10.21	11.18	12.09	12.93
Years above age appropriate for grade	0.91	1.17	2.21	1.18	1.09	0.93
2004	7.89	9.12	10.18	11.14	12.05	12.94
Years above age appropriate for grade	0.89	1.12	2.18	1.14	1.05	0.94
2005	7.80	9.05	10.09	11.05	11.92	12.73
Years above age appropriate for grade	0.80	1.05	2.09	1.05	0.92	0.73

According to available information, drop out is generally not an issue in PRONADE schools. Student attendance is high and, once enrolled, students persist with impressive levels of commitment and enthusiasm, though some reports from MINEDUC indicate that repetition may be an issue. A longitudinal study, conducted from 1999–2001 and published in 2002 by DP Tecnología, showed that in a sample of 281 PRONADE schools approximately 61 percent of boys and 52 percent of

girls reach Grade 3 compared to the national average of 40 percent. By 2005, completion rates in PRONADE had risen to approximately 67 percent, where completion rate is calculated as the total number of completers divided by the total number of students enrolled.

Teachers and parents contribute to the high persistence rates in PRONADE schools. Teachers are hired locally and are required to check on students not in attendance. Involvement of parents on the local school boards further contributes to ensuring that students are present in school and are completing grade levels. On average, PRONADE students are in school 180 days per school year compared to 125 days in the government schools.

Costs and Cost-Effectiveness of Community Schools

The cost of PRONADE was examined from various perspectives. First, the analysis looked at the costs to run such a program and the sources of funding for PRONADE. The cost of PRONADE was examined from various perspectives. First, the analysis looked at the costs to run such a program and the sources of funding for PRONADE. Then, within that total cost, the analysis examined the cost structure and the major program operating costs. It also calculated the cost per student enrolled. In addition to examining the input costs, the cost effectiveness of the program compared to the public education system was examined. Cost-effectiveness was measured in terms of the cost to support a student through completion of the program.

Funding of the PRONADE Program

Sources of Funding: PRONADE	2004	2005
Government Funds	\$60,222,851	\$63,858,327
<i>KfW</i>	\$2,717,913	\$3,974,274
World Bank	\$3,580,942	\$1,829,571
Total	\$66,521,708	\$69,662,173

The costs of the PRONADE program are distributed among MINEDUC, the World Bank, and KfW. While the amount of World Bank funding decreased in 2005, both the Ministry of Education and KfW increased their support for PRONADE. According to MINEDUC, PRONADE's budget is approximately 12 percent of the overall MINEDUC budget for primary education and has increased from approximately \$54 million in 2003 to approximately \$70 million in 2005. See the table above for this year-to-year comparison and the table below for the breakdown of PRONADE costs.

The breakdown of the total recurrent costs for the PRONADE community schools are illustrated above—approximately \$15,500 per school. The recurrent expenditures include teacher salaries and training, travel and transportation, materials and supplies, management oversight, and a school feeding program. As is typical in the public education system, teacher salaries comprise the majority of the recurrent budget—approximately 71% of the PRONADE budget.

PRONADE delegates three main cost categories to the local COEDUCAs for oversight—student materials, teacher materials, and the school feeding program. In 2005, the COEDUCAS paid approximately \$6 per student for materials, approximately \$28 per school for teacher materials, and approximately \$12 per school for a feeding program.

Approximate 2005 PRONADE Costs

Category	Amount in US\$	Percent of total budget
Teacher Salaries	\$49,400,000	71.0
<i>Childcare</i>	<i>\$570,000</i>	<i>0.8</i>
Teacher materials	\$380,000	0.5
<i>Student materials</i>	<i>\$2,910,000</i>	<i>4.0</i>
Food program	\$8,980,000	13.0
<i>Transportation for COEDUCAS</i>	<i>\$60,000</i>	<i>0.1</i>
Oversight of ISEs	\$3,920,000	5.6
<i>Training</i>	<i>\$1,070,000</i>	<i>1.6</i>
Medical Insurance	\$960,000	1.4
<i>Governing Body</i>	<i>\$1,520,000</i>	<i>2.2</i>
Total	\$69,700,00	100

Data from the Guatemala public education system show that the recurrent budget for public education in 2003 was \$423,573,000, as shown in the table below. Approximately 80 percent–90 percent of that budget is spent on teacher salaries—slightly higher than in PRONADE.

Recurrent Costs for PRONADE and MINEDUC

	2003 Recurrent Budget per Year	Recurrent cost per student	Completion Rate	Cost per Completer
PRONADE	\$53,704,503	\$139	67%	\$1,245
<i>MINEDUC</i>	<i>\$423,573,000</i>	<i>\$162</i>	<i>62%</i>	<i>\$1,572</i>

The cost effectiveness of PRONADE can be evaluated in terms of its average cost to produce a primary school completer—a student that finishes the program. Completion rates for PRONADE students in Grades 1–6 averaged approximately 67 percent in 2005 compared to 62 percent in the government education system. Based on the unit costs presented above, the cost per completer in PRONADE is approximately \$1,245 per student compared to \$1,572 per student in the government schools. This difference stems partially from the lower per student costs, but more significantly, from the higher rate of completion in PRONADE schools.

Since completion rates for PRONADE were difficult to confirm, a sensitivity analysis of various completion rates was conducted and comparisons drawn to the MINEDUC statistics. If PRONADE maintained completion rates similar to the MINEDUC system (e.g. 62 percent), the cost per completer would remain lower at approximately \$1,346 per student compared to \$1,572 per student in the MINEDUC system.

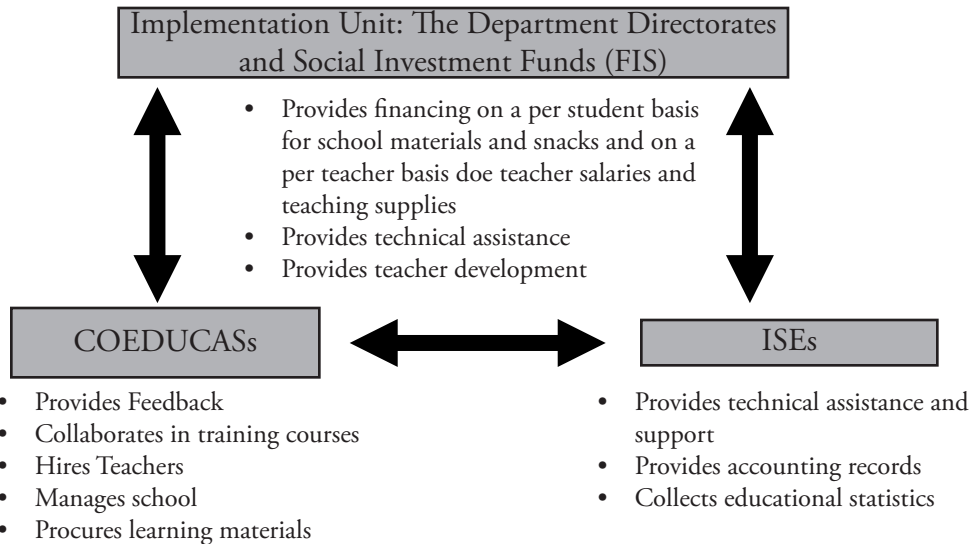
Critical Features of PRONADE¹

Governance and Management

PRONADE is coordinated by an implementation unit that is headquartered in the Ministry of Education. MINEDUC guarantees the transfer of resources to PRONADE, oversees improvements

¹ Information in this section is drawn from the World Bank's 2005 "Decentralizing Education in Guatemala: School management by local communities."

in access and quality, hires the Instituciones de Servicios Educativos (ISEs), and presides over the PRONADE's executive committee.



The Department of Directorates and Social Investment (FIS) is responsible for strategic planning, financial management, and monitoring and evaluation of the program. Specific activities of the unit include:

- Outlining the general framework of the program;
- Determining the geographic areas that receive support;
- Signing the legal covenant with the COEDUCA;
- Identifying, selecting, contracting, and supervising the ISEs;
- Monitoring and evaluation of the program; and
- Coordinating with the Ministry of Education and other relevant departments.

The unit, consisting of 21 Direcciones Departamentales, coordinates with staff from the social investment fund on school infrastructure and liaises with other Ministry directorates on education policy and assessment. School level decisions related to administration and management are left to the COEDUCAs with support from the ISEs.

The COEDUCAs are at the core of the implementation structure of PRONADE and serve as the central administrative unit for the educational system in the community. As legal entities, COEDUCAs are entrusted with the administration of the program at the local level. The concept of managing the COEDUCAs through ISEs was based on previous successful interventions by NGOs such as FUNDAZUCAR and FUNDAP. These NGOs were already working at the community level and could serve as intermediaries between the PRONADE Office in MINEDUC and the schools. Staff are elected locally and usually comprise parents and community members, two of whom must be literate. The COEDUCAs receive operating funds directly from the Ministry of Education and their duties include:

- Hiring and paying teachers;
- Maintaining accounting records;

- Monitoring teacher and student attendance—a minimum 180 days in school;
- Defining the school calendar and schedule within the existing national legal framework;
- Buying and distributing school materials;
- Monitoring school libraries; and
- Organizing the school feeding programs.

The COEDUCAs are responsible for selecting, hiring, and monitoring the activities of teachers, including paying their salaries and ensuring that the teachers provide at least 180 days of class a year to students compared to 125 days in the public schools according to DP Tecnología. Teachers are rehired based on performance, which is reviewed at the end of the year by the COEDUCAs. PRONADE has been characterized by low teacher turnover, attributed mainly to the involvement of the COEDUCAs in selecting teachers and holding them responsible for the delivery of education to their children.

The ISEs are contracted by PRONADE and provide technical assistance and support at the local level. Until 2001, the ISEs provided teacher training on active learning and multigrade and multilingual pedagogies and methods. More recently, the regional ministry offices have taken over the responsibility for training teachers. Functions of the ISEs include:

- Identifying educational needs in the communities they serve;
- Organizing and assisting the COEDUCAs to gain legal status;
- Providing financial and administrative training to members of the COEDUCAs; and
- Maintaining updated information on the schools and students under their supervision.

Teachers and Teacher Training

PRONADE teachers are hired by the COEDUCAs. Teachers must be licensed to occupy positions in pre-primary and primary education. For regions that are extremely rural, the COEDUCAs can hire people with the minimum certification for third grade. Teachers must present a photocopy of the most recently approved teaching license.

Administrative training on school management for teachers and parents was delivered by the ISEs until 2001. In 2001, administrative training for parents was retained by the ISEs. The administration of the school began to be carried out by COEDUCAs and quality training was moved to the Dirección de Calidad y Desarrollo Educativo (DICADE) personnel, which included active learning, multigrade school teaching, and Basic National Curriculum. Some have argued that these changes have led to a decline in the quality of the training program.

Teachers in PRONADE are expected to teach and evaluate students through active learning, report to the COEDUCAs, and receive clearance to be absent from school (e.g. for teacher training). Teachers must also research and understand community needs, coordinate the feeding program with the COEDUCAs, and assist in the management of the school along with the Director. If teachers miss more than three days of school, the COEDUCAs can replace him or her with a new teacher.

The DP Tecnología study conducted from 1999–2001 compared the quality of teachers in PRONADE with rural government school teachers. The objective of the study was to examine whether teachers were able to implement changes in the classroom that improved learning. Teachers were rated in their ability to speak the local language, their relationship with the community, and support they received from external sources. Approximately 689 teachers from PRONADE schools were interviewed. Approximately 264 teachers from the comparison government schools were interviewed, of which 49 percent were men and 50 percent were women.

Percentage of Teachers Receiving Capacity Building

Pedagogical Item	PRONADE Schools				Comparison Public Schools					
	1999		2000		1999		2000		2001	
	Freq	%	%	%	Freq	%	%	%	%	
Use of didactic materials	228	60	56	33	45	36	19	17		
<i>Math</i>	354	60	66	51	55	37	27	21		
Science	261	53	55	38	29	29	13	11		
<i>Spanish</i>	253	50	54	37	35	29	18	13		
Assessment	194	48	54	28	44	31	23	17		
<i>Social Studies</i>	220	38	52	32	23	17	10	9		
Second Language Learning	128	30	25	19	29	16	13	11		
<i>Education Reform</i>	94	30	22	14	38	51	23	14		
Music	62	22	13	9	12	11	3	5		
<i>Physical Education</i>	54	18	11	8	11	10	4	4		

In terms of capacity building for teachers, 33 percent of the study sample indicated that they had received training on the use of didactic items compared to 17 percent in the government schools in 2001. The percentage of teachers receiving subject specific training in Math, Science, and Spanish was 51, 38, and 37 percent respectively compared to 21, 11 and 13 percent for government schools in the same year. These findings reveal that while PRONADE teachers seem to receive more capacity building, on average fewer than half of the teachers sampled attended training. Moreover, as the table above demonstrates, the percentage of teachers receiving capacity building in these pedagogical areas has consistently decreased since 1999.

In terms of the impact that training had on teachers' classroom performance, the 2002 study found no significant differences between the teaching styles of PRONADE and government school teachers, although mention is made that PRONADE teachers have a tendency to integrate more active learning activities into their teaching. In general, both sets of teachers tended toward teacher-centered pedagogy. The study indicates that the failure to see changes in teaching styles, particularly among PRONADE teachers, is traced to the declining amount and quality of teacher training.

In 1999 74 percent of the PRONADE teaching sample was observed to transmit information in a clear manner. By 2001, the percentage had dropped to 62 percent. The government schools experience similar declines falling from 77 percent in 1999 to 58 percent in 2001. Declines were also seen in teachers' abilities to transmit language in a comprehensible manner—from 62 percent to 41 percent—and in teachers' abilities to use positive reinforcement—from 61 percent to 41 percent. The following table further synthesizes the results of teachers' classroom impact.

While all of the areas above experienced declines of 15–20 percentage points, teachers in PRONADE experienced the greatest decline in their ability to transmit information in an understandable language and in their ability to transmit information in a clear manner. It is uncertain what caused the decline in the communicative aspects of teaching in these sample schools. By 2001, these indicators had started to rise once again, but had not returned to their initial baseline levels. It should be noted that teachers in both models acted similarly in the classroom in these areas.

Frequency of Teachers' Classroom Behavior

Pedagogical Item	PRONADE Schools				Comparison Public Schools				
	1999	2000	2001	1999	2000	2001	1999	2000	2001
	Freq	%	%	%	Freq	%	%	%	%
Transmits information in a clear manner	213	74	49	62	70	77	52	58	58
<i>Transmits language in a comprehensible language</i>	143	62	35	41	56	63	33	47	47
Uses more positive reinforcement than negative	167	61	41	48	55	58	37	46	46
<i>Transmits information in an organized manner.</i>	140	59	32	41	55	71	33	46	46
Tasks are clearly defined	130	53	30	38	54	54	32	45	45
<i>Tasks are related to their objectives</i>	126	52	31	36	48	57	28	40	40
Tells students clearly what is expected of them.	125	51	31	36	53	55	29	44	44

The decline in impact was also seen among supervisors and the ISE technicians. The results for this group paralleled those observed by the researchers. Supervisors were less able to transmit information clearly, use different techniques to communicate materials, and transmit information in an organized manner. This decline may be associated with the rotation and replacement of supervisors with less experienced staff or with the rotation of ISEs. In both cases, the longitudinal study was unable to establish a conclusive cause for the declines.

In previous years, teacher training for PRONADE staff had been the responsibility of the ISEs. PRONADE teachers would receive the equivalent of three to five weeks of training per year, which was focused on both content and methods. In 2001, teacher training was transferred back to MINEDUC through the Direcciones Departamentales and PRONADE teachers only received three days of training. A follow-up study on the impact of this change is needed to determine the impact on the quality of teaching.

Teaching Multiple Grades

The number of grades taught by one teacher often impacts the quality of instruction in the classroom, and in PRONADE there are no established criteria for determining which teachers are assigned multi-grade classes or whether they have the skill sets to effectively teach the grade(s) to which they are assigned. DP Tecnología's 2002 longitudinal study examined the number of teachers responsible for multi-grade classrooms. Results showed that between 1999 and 2000, there was a 5 percent increase, from 24 to 29 percent, in the number of teachers responsible for one grade in the sample schools. However, 71% of PRONADE teachers are still teaching multi-grade classes. In the 281 sample PRONADE schools included in the study, 28 percent of teachers are responsible for two grades, 29 percent for one grade and 19 percent for three grades. In the government schools, the distribution is similar—29 percent are responsible for one grade, 30 percent for two grades, and 21 percent for three grades. The percentages remained relatively unchanged from 1999-2001.

Curriculum and Instructional Time

The longitudinal study also compared the percentage of schools offering complete instructional days. The study found that in 1999, students in 67 percent of PRONADE schools received a full, five hour instructional day. A year later, the percentage had risen to 88 percent and to 90 percent

in 2001—a 23 percent increase in the number of PRONADE schools offering a complete day of instruction. The government schools also showed an increase in the percentage of schools offering a complete day of instruction—from 63 percent in 1999 to 70 percent in 2001. However, the percentage of government schools offering a complete instructional day remained lower than PRONADE.

It is important to note that instructional time refers to the amount of time that the teacher and students are engaged in teaching and learning activities. Instructional time between PRONADE and the government schools was also compared in the longitudinal study. In 2001, 87 percent of PRONADE schools were providing at least 4 hours and fifteen minutes of classroom instruction—an increase of more than 20 percent from 1999. By the same measure, the government schools were found to have much lower efficiency—approximately 58 percent in 2001.

The longitudinal study also examined classroom practices in the sample schools. The study found that teachers in both PRONADE and the government schools used the small group technique more than any other method—80 percent and 75 percent respectively in 2001. Other techniques used in classrooms to help students learn included: time on task—65 percent in PRONADE schools compared to 64 percent in government schools in 2001—and cooperative learning—52 percent compared to 42 percent in 2001 respectively. When teachers were asked to explain why they used these various classroom techniques, the teachers indicated that the combination of pedagogical practices subjected students to a process of self-learning and self-control. The reflective, self-learning approach contributes to a higher level of learning and a greater ability to reach learning objectives according to the longitudinal study.

While PRONADE has made strides in improving teachers' pedagogical practices, both PRONADE and government school teachers overwhelmingly continue to practice traditional teaching methods in the classroom. Because PRONADE has almost met its access goals, a greater emphasis on quality of instruction will be critical to ensuring students succeed. The Ministry of Education and PRONADE staff need to clearly define the concepts teachers are expected to teach and ensure that training and direct instructional support are provided to ensure proper implementation of the pedagogical concepts in classrooms.

Use of Materials and Language of Instruction

During the longitudinal study, researchers also observed the use of instructional materials in the classroom of both PRONADE and the government schools. The results showed that across the board, the majority of teachers in both educational systems failed to use instructional materials—approximately 84 percent of PRONADE schools did not use books or instructional guides compared to 85 percent in the government schools.

In terms of language of instruction, the percentage of bilingual teachers increased significantly in both the PRONADE and the government schools—93 percent of PRONADE teachers and 85 percent of government school teachers are bilingual. Moreover, the study demonstrated that both groups experienced a reduction in the use of Spanish-only language instruction. By 2001, 40 percent of PRONADE teachers were using only Spanish compared to 48 percent of teachers in the government school system. According to DP Tecnología, 9 percent of PRONADE teachers used a Mayan language exclusively compared to 13 percent in the government schools. International research on bilingual education indicates that use of mother tongue instruction in the early years of education assists students in learning foundational literacy and numeracy skills, hence contributing to improved school performance. This study asserts that the use of bilingual education contributed to improved student learning in the PRONADE schools, although further research is needed to actually measure those gains and attribute them directly to mother tongue instruction.

Role of the COEDUCAs

Community and parental involvement in the education of their children is a critical element to the effectiveness of the PRONADE program. The COEDUCAs became central to the process of serving as an intermediary between the Central Ministry and local communities.

For the purposes of the longitudinal study, 685 members of COEDUCAs and 204 Directors of the comparison schools were interviewed. Results of the interview process showed a decline in the amount of capacity building and training that both Directors and parents in the PRONADE schools received. In 2001, the COEDUCAs received only five days of capacity building, compared to 10 in 1999 as noted in DP Tecnología's study. The decline in capacity building contributed to a decline in members' understanding of their role and responsibilities, vis-à-vis the role of the COEDUCAs. The decline in understanding about their roles and responsibilities impacted members' abilities to oversee teacher roles and provide the necessary support to ensure effective learning in the classroom.

Interestingly, while the COEDUCAs seem to have lessened their engagement, parents increased their support to the PRONADE schools, which demonstrated the confidence the parents had in collaborating with the COEDUCAs. In fact, DP Tecnología found that on the day observations were conducted there was at least one parent actively engaged in the classroom in 62.9% of PRONADE schools. The benefits of the increased parental involvement need to be recognized and further developed by the PRONADE schools.

The Policy and Institutional Context

The policy and enabling environment play a critical role in the development and implementation of complementary models such as the PRONADE program. In the case of Guatemala, the government, MINEDUC in Guatemala's case, played a critical role in both establishing and supporting PRONADE. The concept of PRONADE arose from various experiences both within and external to Guatemala. Internally, MINEDUC had already been experimenting with two alternative programs: Refugiados—targeted at the Mayan refugee population—and the Institutos por Cooperativas. The communities of Refugiados were hiring their own facilitators, called promotores educativos, which had been authorized under the Peace Accords. Today, there are more than 1,200 teachers who began as promotores, hired and paid by the communities under the Refugiados program. These teachers were not selected through the regular teacher selection process, but were given a regular teaching post. The practice set the precedent for allowing communities to select their own teachers under PRONADE.

The Institutos por Cooperativas were geared towards middle schools that had been working since the 1970s. These Institutos were created in municipalities by parents and the MINEDUC, and were funded in equal parts by community and MINEDUC contributions. The practice of shared funding for community-based education in Guatemala was thus borne in the 1970s. The EDUCO program in El Salvador also contributed ideas to the design of PRONADE.

The development of PRONADE was triggered mainly by on-going administrative challenges in the regular education system including the lack of native or bilingual teachers to teach in non-Spanish speaking communities, the lag time to assign a teacher in the government system—which can take two years—and the fact that it was difficult for MINEDUC to execute funding directly and send provisions to the schools. MINEDUC realized it needed a system that allowed for decentralized local control of funding and hiring teachers.

In 1994, almost eight years after the signing of the Peace Accords, MINEDUC established PRONADE as a legal entity under Law 24-97, Article 33 of the Constitution. The objective was to

increase access, improve the quality of education in rural areas, and increase participation of rural communities in the education process. These objectives coincide with the mandate of the Peace Accords to increase civic participation and democracy in Guatemala. MINEDUC ensured that PRONADE was a legal entity and worked with the Ministry of Public Finance to allocate resources to support the program each year. MINEDUC was the driving force in the establishment of PRONADE.

Placing trust in the communities was paramount in the process of establishing PRONADE. Based on the previous experience of Refugiados, Institutos por Cooperativas, and NGOs such as FUNDAZUCAR and FUNDAP, MINEDUC believed that parents would do a better job managing the resources intended for the education of their children. The Ministry of Education also thought that officials at the central, more bureaucratic level would potentially hinder the process, based on the administrative challenges previously discussed.

A financial trust was established to administer resources to the COEDUCAs and ISEs. The COEDUCAs did not have to manage themselves through the regular government procedures to purchase items or hire staff. Since they were given their own administrative structure, the COEDUCAs were better able to execute the management of resources, though it did require more training. Consistent with the government's agreement to establish PRONADE as a legal entity, the Ministry of Public Finance agreed to allocate sufficient resources to the trust each year to ensure implementation of the program. As noted in the World Bank's 2005 article, "Decentralizing Education in Guatemala: School management by local communities," funds are dispersed every three months to a local bank, based on expenditures submitted by the COEDUCAs and PRONADE. The ISEs provide substantive input in developing the budget and ensuring that funds are spent correctly and in accordance with allocated categories of expenditures. PRONADE and the ISEs' financial units are responsible for supervising the process, with the support of MINEDUC.

The process of delegating management authority to the community level has been highly successful, with more than 4,600 PRONADE schools now managing their own resources. More importantly, the success of PRONADE led MINEDUC to decentralize resource management to all government schools that are now working with a similar system. While the government schools cannot hire their own teachers, the schools are able to develop Juntas Escolares—similar to the COEDUCAs. Today, more than 10,000 schools in Guatemala have their own Juntas Escolares and are working in a decentralized manner, executing a budget for all support services including teachers' materials, school supplies, and school lunches.

Conclusions and Limitations of PRONADE

PRONADE has become the main strategy for increasing basic education coverage in rural Guatemala, with particular success in terms of increasing access and completion. Today, the program serves between 15% and 20% of pre-primary and primary school students and does so in a cost-effective way.

However, PRONADE is also a controversial program because according to the Programa Nacional de Evaluación del Rendimiento Escolar (PRONERE), it has reduced the role of the government and transferred responsibilities and costs to the rural population. To some, PRONADE has created a parallel system of education, rather than one that supports and integrates with the existing system. Opponents of the program argue the following points:

- The State's reduced role in delivering education impacts quality since decision making is reduced to regulatory and delegatory issues.

- A 2000 report by PRONERE indicated that the poorest performing schools were those from the Directorate of Bilingual Education and PRONADE. Opponents attribute the poor performance to the fact that PRONADE teachers have not been fully trained, are teaching assistants, or have other non-traditional qualifications (i.e. have not attended or graduated from Teacher Training Colleges). However, PRONADE schools are located in the areas with the poorest access to education. These factors play a role in the results of evaluations as well as in the quality of schools.
- While communities should take an active role in management and decision making at the school level, they are in reality relegated to administrative functions.
- Self-management is still absent at the more numerous traditional government schools
- Bilingual teachers lack pedagogical education in bilingualism.
- The training of teachers is the responsibility of the Ministry of Education, is centralized, and does not necessarily respond to the requirements of the schools controlled by the community. This problem is confirmed in the 2002 DP Tecnología evaluation that found that the quality of teachers had declined since the ISEs ceased to provide teacher training and the function was transferred back to MINEDUC.

Proponents, including the World Bank, acknowledge many of these issues but viewed them as challenges along the development path. Proponents also feel that the failure to fully institutionalize PRONADE into the MINEDUC system contributed to the perception that it is a parallel, rather than complementary system.

Data presented in the previous section of this case study indicates that PRONADE is a cost-effective way to educate children in underserved communities. The program has increased Guatemala's enrollment rates by 15-20%, bringing the country closer to its EFA targets; produced higher completion rates; and led to PRONADE students performing equal to or better than other rural schools in math and better in reading according to a 2004 World Bank Notes report..

PRONADE also effectively creates an opportunity to learn for its students. An opportunity to learn, according to Porter's 1993 paper, refers to the creation of equitable conditions or circumstances within the school or classroom that promote learning for all students. The term also refers to the absence of barriers that prevent learning as noted in Mereku, et. al's 2005 study. While the views about what creates an opportunity to learn differ, Ysseldyke, et. al. define it as the basis for assessing the sufficiency or quality of the resources, practices, and conditions necessary at each level of the education system to provide all students with the opportunity to learn the national curriculum. Current research conducted by Gillies and Quijada in 2007 indicates that schools can provide an opportunity to learn by meeting the following core elements:

- A minimal instructional time of 850-1000 hours per year. PRONADE ensures 180 days of instruction annually—approximately 850 hours.
- The school is open every day of the school year, and the school is located in the village or at least within 1 km of the student. PRONADE schools are open in local communities that have a minimum of 25 students ready to attend school.
- The teacher is in the school every day of the school year. COEDUCAs ensure the teacher's presence.
- The student is in the school every day of the school year. COEDUCA's and parents in PRONADE ensure the students are in school. If absent, teachers follow-up with the family.
- The student-teacher ratio is within manageable limits, assumed to be at least below 50-1.
- Instructional materials are available for all students and used daily. PRONADE ensures students and teachers have materials.
- The school day is organized to maximize time on task.

PRONADE has improved access and quality in education for a significant number of children in Guatemala. In the coming years, the program will be challenged to continue assisting the public school system in reaching hard-to-reach populations, while reducing repetition, improving training for teachers and the COEDUCAs, and ensuring continued efforts at better understanding the impact of PRONADE on education—particularly completion rates and achievement—through impact evaluations and studies.

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Meeting EFA: Honduras Educatodos

Introduction

Education is critical to developing countries' economic capacity. According to the United States Agency for International Development's (USAID's) *Evaluation to Support Learning: The Evaluation Process of the 7-9th Grade of Educatodos*, an estimated 75 percent of Hondurans had not completed the seventh grade and approximately 1.6 million youth and adults of age had not completed the sixth grade in 2001. The number of out-of-school youth in Honduras presents a particular challenge to meeting Education for All (EFA) goals; the process will take years.

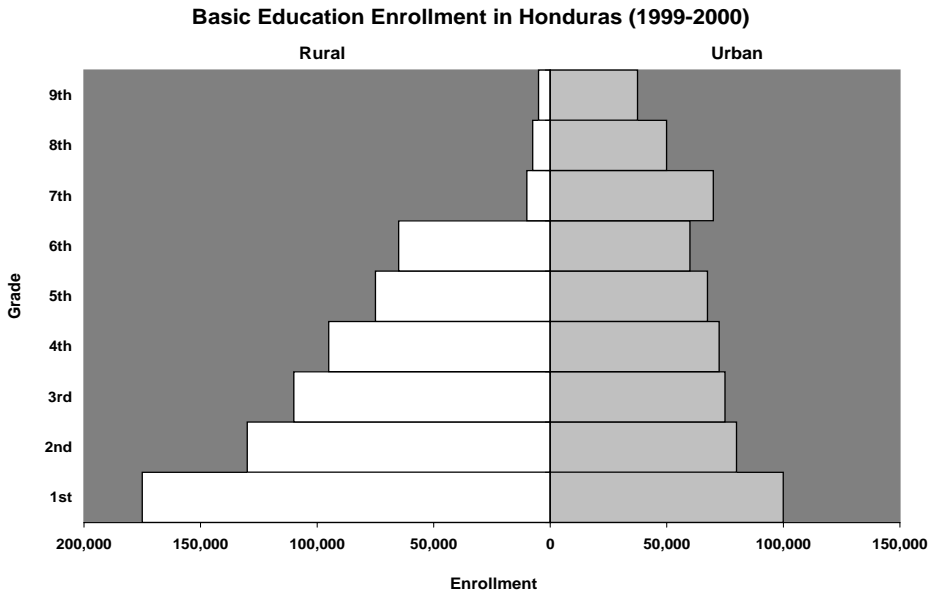
In the early 1990s, USAID and the Secretary of Education began looking at alternative mechanisms to reach out-of-school youth and ensure that both youth and adults complete a sixth grade education. USAID created the Educatodos program through a complementary service delivery model in 1996 to offer youth and adults the opportunity to complete grades one through six in three years. In 2000, the program expanded to include grades seven through nine. Educatodos cost-effectively responds to the demand for basic education in a significantly shorter time frame than the traditional education system. It uses existing country and community infrastructure and an integrated curriculum utilizing audio and printed materials to effectively meet students' needs. Volunteer facilitators with diverse academic backgrounds implement the program from learning centers situated in factories, businesses, schools, and community centers throughout the country.

The following case study examines the overall growth and impact of the Educatodos program in Honduras during the past decade. The case examines the program's contributions in the areas of access, completion, cost and cost-effectiveness, quality, human resources and staffing, and policy and the enabling environment.

Access

Access to both basic and secondary education has expanded in Honduras during the last 10 years. The government's commitment to meeting EFA has enabled more students to enroll in basic education, with gross enrollment rates increasing from 1,094,792 in 2000 to 1,227,368 in 2003. While longitudinal data is difficult to obtain because many records were destroyed by Hurricane Mitch in 1998, available data do show a net enrollment rate for grades one through six of 87 percent in 2001. The net enrollment for primary education remained consistent through 2003, even rising as high as 94 percent for students in grades one through three. However, net enrollment dropped considerably after sixth grade, with only 29 percent of 13 to 18 year-olds enrolled in grades seven through 12. The graph above shows the drop in rural and urban basic education enrollment as students move from grade one to grade nine. Dropout rates are significantly higher in rural regions compared to urban areas.

Access to basic education has almost been met for age appropriate students just entering the system. Honduras has attained higher levels of access; however, the challenge is reaching both the underserved and disadvantaged populations, as well as providing a basic education for students who abandoned school prior to completing grade nine. Data from 2001 show that approximately 310,000 children ages 12 to 18 have not completed grade six and an additional 230,000 students 15 to 18 years old who completed sixth grade had not completed ninth grade. This out-of-school population is Educatodos's target audience: 540,000 students and an additional 1.1 million young adults age 19 to 30 who failed to complete nine years of basic education and other adults seeking alternative means of attaining basic education.



The first of several tables with data from USAID's December 2002 *Los Participantes de Educadores: Estudio Longitudinal: Primer Informe* summarizes the ages of students at the various grade levels of the Educadores program.

Levels of Schooling and Ages of Participants in Educadores (2002)

	Grade 1-3	Grade 4-6	Grade 7-8	Grade 1-8
Initial Years of Schooling	1.6	4.1	6.9	4.0
Average Age in Program	27	22	16	25
Range of Ages	7-74	9-78	11-52	7-78

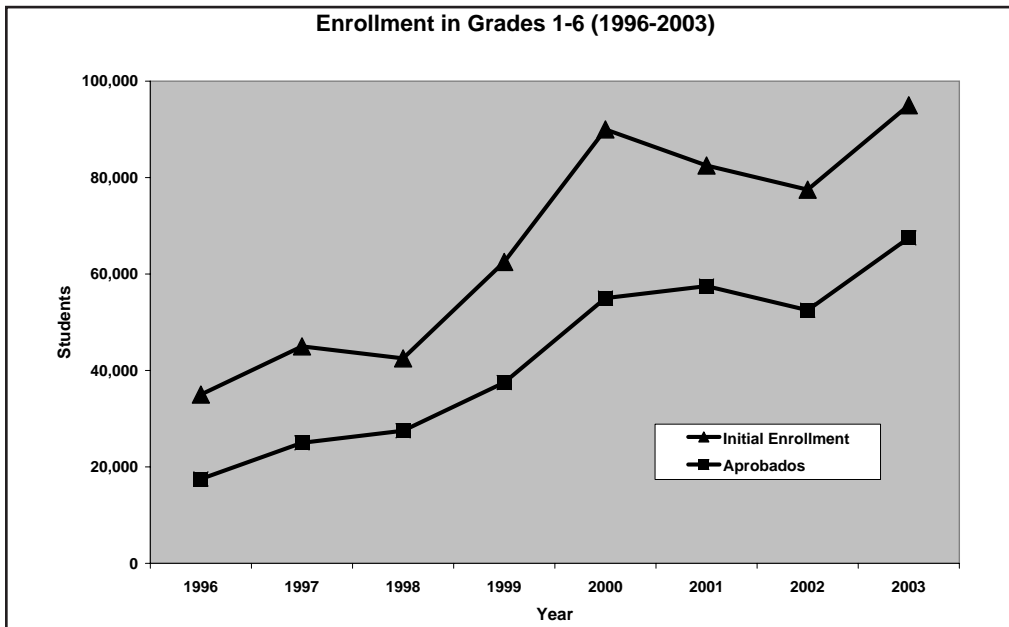
As the table demonstrates, the participants in Educadores enter the program with varying initial levels of education. While the average age of participants entering grades one to three is higher than subsequent grades, 23 percent of participants in grades four to six are under 16 years of age. The average age of participants falls as the level of instruction (i.e., grade) rises, so younger students tend to be enrolled in the higher grades. Research has shown that the earlier grades are typically filled by older students who simply want to learn to read and write, while the later grades are younger students who wish to complete either sixth and ninth grade in order to improve their lifetime expected income or reintegrate back into the formal schooling system.

The table below provides a different way of looking at the age distribution data and supports the idea that younger students tend to enroll in the upper grades of the program. Reduction of the average age of participation is particularly important to Honduras's achievement of its EFA and Poverty Reduction goals. For example, the Poverty Reduction goals are to provide 70 percent coverage in grades seven to nine for children ages 13 to 15. Data collected from the Educadores program shows that two of every three participants in seventh and eighth grades are under 18 years of age and that 36 percent are under 16 years of age.

Distribution of Educatodos Participants by Age and Level of Instruction

	Grade 1-3	Grade 4-6	Grade 7-8	Grade 1-8
Modal Age	18	15	14	15
1 of 3 Students	≤20	≤17	≤15	≤16
Range of Ages	21-35	18-27	16-17	17-25

Enrollment rates in Educatodos have risen consistently over the program's life. In 2003, Educatodos enrolled 117,656 students with approximately 80 percent participating in the grade one to six program and the remaining 20 percent in the grade seven to nine program. Since its inception in 1996, Educatodos has enrolled over 500,000 students in its primary school program, producing over 350,000 person years of education from grades one through seven. The graph below summarizes enrollment trends over time.



The grade seven to nine program is newer, initiated in the year 2000. Even so, seventh grade enrollment has risen from 2,728 in 2000 to 8,824 in 2003. Enrollments in grade eight have risen from 2,187 in 2002 to 2,957 in 2003. In 2003, 1,436 students completed grade nine, giving the program an efficiency rate of approximately 54 percent, compared to 35 percent in the public schools.

It is important to note that the Educatodos program targets out-of-school youth and adults who would like to attain a primary education. As a result, the populations in the program are not comparable to the public school system, so drawing comparisons related to the completion rate are tenuous at best. This model serves as an example of a program that is increasing the overall educational level in Hondurans, as well as targeting school-age children.

Completion

Completion of the Educatodos program should be examined in terms of the number of people for whom the program is providing a sixth or ninth grade education. The World Bank's 2001 *Education*

for *Dynamic Economies: Accelerating Progress Towards EFA* suggests that many low-income developing countries are trapped in a low-returns equilibrium and that until the average level of human capital rises beyond five or six years, the country will not be able to break out of the cycle. Once this threshold is passed, countries seem to achieve a more steady growth path. *Educator* both contributes to grade level completion and increases the educational level of the adult population in Honduras.

The national completion rate for the public primary education schools in Honduras has improved significantly over the last decade. The gross graduation rate for 12 year-olds in sixth grade was 78 percent in 2003—90 percent in urban areas and 69.9 percent in rural areas. Eighty percent of *Educator* centers are located in the rural areas of Honduras. The completion rate drops significantly in grades seven to nine. Completion rates in 1999 were approximately 32 percent and rose slightly to approximately 35 percent in 2003. In 2001, there were 232,708 15 to 18 year-olds who had completed sixth grade but had left the system prior to completing ninth grade.

Completion of the *Educator* program relates to the number of students who complete both the individual two-year grade cycles and the full primary cycle of grades one to six. Examining the completion rates for *Educator* reveals that the program is as efficient as the public system, with an average completion rate of 61 percent from 1996 to 2003. Completion rates have held steady at 71 percent from 2000 to 2003. Completion rates for the grades seven to nine program, where students are closer in age to their peer population in the public system, are higher at 54 percent, compared to 35 percent in the public education system. The *Educator* program has produced 350,000 person years of education since 1995 and 7,188 students have completed seventh, eighth, or ninth grade since 2001.

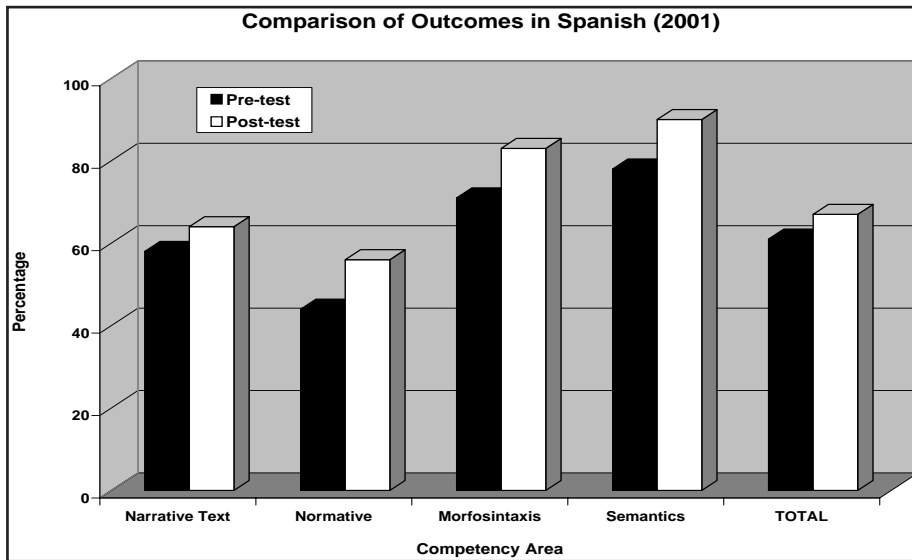
Learning

A study conducted in October and November 2001 by researchers from Universidad Pedagógica Nacional Francisco Morozán (UMCE) and published in *Logros Académicos del Séptimo Grado de Educator: Estudio Comparativo Externo de los Centros de Educator e los Centros Regulares* by Unidad Externa de Medición de Calidad Educación measured student learning in the *Educator* pilot centers and expansion centers and in the traditional school system. A pre-test was conducted for students in the seventh grade pilot centers at the beginning of the year, and post tests were conducted for students in the pilot centers, expansion centers, and government schools. Results from the evaluation included the following results:

- Students from *Educator* demonstrated similar and, in some cases, better performance on measures of Spanish and mathematics than students in the regular public school system. These results were achieved in spite of having fewer resources, less school time, and volunteer facilitators instead of teachers.
- The performance of students in the *Educator* pilot centers was significantly better than the performance of participants in the expansion centers and the students in traditional schools. The result was statistically significant.
- An analysis between the pre- and post-tests given to students in the *Educator* pilot centers indicated that their performance improved significantly in each of the Spanish and mathematics tests at the grade four, six, and seven levels.
- In Spanish, 67 percent of seventh grade participants achieved full mastery of the competencies corresponding to fourth grade competencies, 46 percent achieved mastery of sixth grade competencies, and 22 percent achieved full mastery of the skills associated with seventh grade.

- Mathematics results were slightly lower: 53 percent of students in the pilot centers achieved full mastery of the fourth grade competencies. Of the seventh grade participants, 76 percent began at the non-mastery level and only 2 percent achieved mastery by the end.

In reviewing these results, it is important to note that while both the UMCE tests and the Educatoros program are based on objectives provided by the Secretary of Education (SE), Educatoros uses an integrated program, whereby the academic subjects are integrated within content areas or themes. The UMCE tests evaluated the math and Spanish in district tests. The results provide evidence that students are effectively learning core subjects through an integrated approach. It is also important to note that no pre-test was conducted in the government and expansion centers, so the results do not reflect learning gains during the year. Finally, caution should be taken in interpreting these results comparatively. Students took this test in the seventh grade level of both the Educatoros program and the government system; however, it is unclear whether the students in the Educatoros program had been long-term participants in the program or had completed their previous grades education in the public system. As a result, the only learning outcomes attributable directly to the Educatoros program are those increases occurring in the pilot centers.



The graph displays grade seven student competency at the grade four level in Spanish. On average, students improved mastery of content areas by 10 percentage points during the year and seven percentage points on the total score. Students at the pilot Centers performed slightly worse on grade six competencies, increasing from 49 percent to 57 percent on the overall score. At the grade seven competency level, students improved their test scores by 10 percentage points, raising scores from 45 percent to 55 percent during the year.

The results in mathematics were slightly lower than gains in Spanish. The table below summarizes results at the three grade levels for seventh grade students and their level of content mastery at fourth, sixth, and seventh grades.

Percentage of Students Answering Math Questions Correctly (2001)

Competency Level	Pre-test	Post-test
Grade 4	61	67
Grade 6	34	42
Grade 7	25	31

One additional note should be added regarding gender. The Improving Educational Quality (IEQ) Project conducted a study that examined the impact of *Educator*s on women. Results from the study suggest that the model assists both facilitators and students obtain control over everyday factors that impact their lives, including social, political, biological, physical, and sexual. Results also indicate *Educator*s helped increase women participants' self-esteem and is providing new opportunities for women to enter the workforce, although no statistical data was available.

Cost and Cost-Effectiveness

The cost of the *Educator*s program is examined from various perspectives. First, cost to develop such a program, cost to operate the program, and make-up of those costs are reviewed. Second, it is important to examine the cost-effectiveness of the *Educator*s program in terms of unit cost per student enrolled and per student completed. Costs are compared to the same measures for the public schools in Honduras.

Cost for *Educator*s and the Public Education System (1996-2003)

	EDUCATOR			PUBLIC ED
	Total Costs	Recurrent Costs	Recurrent Costs per Student	Recurrent Costs per Student*
Grade 1-6	\$18,584,415	\$13,584,415	\$40	\$102
Grade 7-9	\$7,617,680	\$1,117,680	\$80	\$292

*Data for 2003 only

In 1993, USAID and a local NGO began to develop the curriculum and materials for the SE. Between 1993 and 1996, approximately \$5 million was invested in development costs to initiate the grades one to six program, and an additional \$6.5 million for the grades seven to nine program. In all, \$11.5 million was invested for start-up and expansion of the *Educator*s program.

Recurrent costs of the program from 1995 to 2003 were approximately 73 percent of the total costs and encompass expenditures such as salaries and wages, travel and transportation, materials and supplies, and operational costs. The recurrent costs of the program during this time were funded jointly by USAID/Honduras at 68 percent and the Ministry of Education at 32 percent. It is expected that in 2005, USAID provided \$2.1 million and the SE \$1.5 million. By 2009, the total supported by USAID is expected to drop to \$1.1 million and the SE \$2.5 million. In 2010, 100 percent of *Educator*s will be financed by the SE. As the table above indicates, the cost per student enrolled in *Educator*s is \$40, compared to \$102 in the public education system. The per-student cost rises to \$80 in the program for grades seven to nine, but is still significantly lower than the per-student cost in the public education system.

The cost-effectiveness of the *Educator*s program can be evaluated in terms of its average cost to produce a student who completes the primary school equivalent. The completion rate for the grades one to six program was an average 61 percent from 1996 to 2003, compared to 78 percent

in the public education system. Based on the unit costs presented above, the cost per student that completes the Educatoros program is \$197, compared to \$903 for public education. The difference in costs stems partially from the fact that per student costs are lower and students can complete the grades one to six program in three years, versus six years in the traditional system.

The completion rate for the grades seven to nine program was an average 54 percent from 2001 to 2003, compared to approximately 35 percent in the public education system. Based on the unit costs presented above, the cost per completing student in Educatoros is \$180. Per-student costs are also lower in this program, and students can complete the program in 25 months, versus three years in the traditional system. A 2000 USAID report estimated that the cost per completing student in public school grades seven to nine was \$702. However, recent estimates using 2003 data suggest that the actual cost of completion for grades seven through nine could be as high as \$2,736.

Critical Features of Educatoros

One of the main strategies of the Educatoros program is to establish a support system made up of existing local organizations. As a result, the learning centers are situated in a variety of locations, including factories, micro-enterprises, NGOs, government installations, municipalities, vocational centers, and schools. Each participating organization that agrees to house a learning center signs a cooperative agreement with the program.

Educatoros has a decentralized structure for promoting, monitoring, and evaluating quality at the local level. Each department has at least one coordinator, named by Educatoros, who coordinates and manages all of the regional operations and coordinates with the Departmental Secretariate of Education. Each department or district has municipal promoters who are appointed by the SE. Their responsibility is to organize and supervise the learning centers. Teachers are volunteer facilitators from the community with varied economic and academic backgrounds. They receive training on program methodology and are supported by the program promoters and coordinators to ensure quality teaching.

Guidelines that orient the curriculum for grades seven to nine follow SE guidelines and were developed around performance standards in four basic areas: mathematics, communications, science and technology, and social science. The basic performance standards focus on concepts and content that is pertinent to the daily lives of Educatoros participants. Five cross-cutting themes chosen through discussions with key national education players and reflecting essential issues faced by participants drive the program: population, environment, health, national identity, and citizenship and democracy. Work skills and values are incorporated into each of the cross-cutting themes, and participants develop community projects to integrate classroom learning into daily reality. All learning is student-centered and constructivist-based.

Educatoros has a flexible schedule that requires only an average of two and a half hours of group work per day, complemented by homework. Classrooms are multi-grade and multi-age with students ranging from eight to 40 years old, and three grade levels are completed in one year. Learning is acquired through a combination of audio tapes, *jornadas de aprendizaje*, and community projects. Assessments in grades one to six have expanded since the program's inception. From 1995 to 1997, students were given a final exam. In 1998, a process exam was added to ensure quality. By the year 2000, students in grades one to six were required to take three process tests and a final exam in order to pass to the next grade level. For grades seven to nine, exercises within the units foster learning. Students are required to take quizzes at the end of each unit to review learning objectives and institutional tests are given at the end of each cross-cutting theme. Formative evaluation processes were used by program developers to ensure quality in the curriculum development process.

Human Resources and Staffing

The nature of the staff employed in conjunction with the administration of the complementary programs often differs from that of the traditional school system. The volunteer facilitators that comprise the teaching force in the *Educadores* program are a key element in assuring that participants continue their studies. In 2000, there were approximately 8,823 facilitators working across 15 regions in the *Educadores* program. Of the total number of facilitators, 3,819 were men and 5,004 were women.

Eighty-two percent of the current learning groups that provide instruction in grades one to six are located in the rural regions of Honduras where the average school attainment levels are below four years of primary schooling. In the grade one to six level, volunteer facilitators often have six years of education or less and are primarily housewives and small farmers, although 18 percent of facilitators at this level are teachers. Approximately 35 percent of the volunteers are former *Educadores* participants who have returned to contribute to the program. The volunteers earn approximately \$100 per month in addition to a food basket, travel, and transportation valued at approximately \$2.90 per facilitator. The student to facilitator ratio for grades one to six is approximately 15 to one.

Facilitators at the grade seven to nine level have attained a higher level of education. Fifty percent of the volunteers have university degrees and 71 percent are trained teachers or public employees. Working at the higher levels of the program also commands a higher salary—approximately \$300 per month in addition to a food, travel, and transportation stipend. In contrast to grades one to six, 56 percent of the volunteer facilitators for grades seven to nine are located in the urban areas and only 44 percent are located in the rural regions of Honduras. Twenty-four percent of the facilitators who now teach seventh grade previously taught grades one to six and approximately 10 percent are former students of the program. The student to facilitator ratio for grades seven to nine is slightly higher at 21 to one.

The average length of volunteer service in *Educadores* is 18 months and 90 percent of volunteers are also involved in other volunteer activities in their own communities. Eighty-two percent of facilitators in grades seven to nine and 62 percent of facilitators in grades one to six hold other employment. Based on the earnings from their primary employment, the value of the time contributed by the volunteer facilitators to *Educadores* has been estimated at approximately \$650,000 per year in grades one to six and approximately \$2 million at the grade seven to nine levels.

In addition to the volunteer facilitators, each department has a coordinator who manages all of the regional operations and coordinates the program with the SE. Municipal promoters are appointed by the SE and are responsible for organizing new learning centers and supervising the existing ones. Both groups actively participate in all *Educadores* activities.

Policy and the Enabling Environment

The policy and enabling environment in a country will significantly impact the development and implementation of complementary models and systems. In the case of *Educadores*, the Secretariat of Education has been extremely supportive of such programs, even including specific budget lines to help support several alternative models of service delivery (e.g., *Educadores*, *Telebasica*). In August 1995, the Honduran National Congress issued a decree establishing a USAID agreement and the government created U.S. donation-funded program to work assist the SE with the Basic Education for All Adults project. The statute established the following four principles:

- Certificates obtained by participants who pass grades one to six in Educatodos will be officially recognized.
- The different grades of study are equivalent to the corresponding grade levels in the national system.
- Participants in Educatodos who pass the sixth, seventh, or eighth grade are authorized to matriculate into the next grade level in basic education centers, middle schools, or other institutions providing basic education.
- Students who pass ninth grade are eligible to enroll in secondary education.

As part of the Hurricane Mitch reconstruction package, USAID/Honduras and the SE founded the IEQ II project to expand the Educatodos program to grades seven, eight, and nine. Under the agreement, the SE assured that the national curriculum department would cooperate with Educatodos to develop appropriate curriculum, adopted the Educatodos grade seven to nine curriculum and applied it to all traditional and alternative education systems in Honduras, collaborated with USAID and its contractors to create sustainable strategies for the program, officially recognized the agreements and procedures pertaining to the program, provided the initial sets of texts and audio learning materials to new organizations and groups implementing the Educatodos program, and assured that the SE personnel at the departmental and district levels cooperated with all organizations involved in the project.

The SE has further supported both the grades one to six and grades seven to nine programs through the provision of direct funding. The funding has supported the volunteer facilitators' salaries and wages, transportation and fuel, and food. While the program is a Secretary of Education program, students and teachers are excluded from official government training and counts.

The Educatodos program has experienced many successes in its first eight years of operation, yet, it also faces dropout and retention challenges, similar to the public school system. In the coming years, the program will face the challenge of ensuring that it continues to assist the public school system in reaching EFA targets while reducing dropouts, improving training for facilitators, and ensuring that both youth and adults continue to have cost-effective access to education.

Acknowledgements

This paper was written for EQUIP2 by Audrey-marie Schuh Moore, Ph.D. (FHI 360), 2006. A summary of findings from three case studies, *Meeting EFA: Cost-Effectiveness of Complementary Approaches*, is also available.

Meeting EFA: Mali Community Schools

Introduction

At the start of 1990s, Mali's basic education system was failing under the weight of dictatorship. National public primary schools only accommodated 22 percent of the country's children. In 1991, Mali's military dictatorship ended, and the advent of the Third Republic promised a new era of opportunity. A democratic and more prosperous future for the country depended on, among other things, the expansion and improvement of education.

During the 1990s, the Malian government, with substantial external assistance, embarked on major education sector reforms aimed principally at redirecting resources towards the expansion of basic education. A separate ministry for basic education was created and significant external funding was made available to support investments in school construction and the training, hiring, and deployment of teachers. However, throughout the 1990s, demand for schooling outweighed the rate at which the government could place new teachers in classrooms. In 1995, a district official reported failing to meet requests to assign teachers from 60 villages, some of which had even constructed school buildings. Community school construction has a long history in Mali, but official recognition of such schools had no precedent before the remarkable expansion of community-initiated education seen in the 1990s. International and local nongovernmental organization (NGO) support helped build the community school movement that lasted from 1993 to 2003.

In Mali, community schools are education centers spontaneously started by the community members themselves, almost independent of government participation. The term also encompasses schools supported by international NGOs, usually with substantial external funding and local NGO participation. According to Recherche sur Education en Afrique de l'Ouest et Centre's (ROCARE's) *Le Rôle des ONG dans l'Éducation de Base au Mali*, published in 2001, the Malian community school effort originated in 1963 with the circumscription of San. Today, some 2,500 primary schools are officially considered community schools by the government, more than 1,500 of which—798 funded through Save the Children, 676 funded through World Education, and 80 funded through Africare—are supported by United States Agency for International Development (USAID) funding, according to a 2001 study.

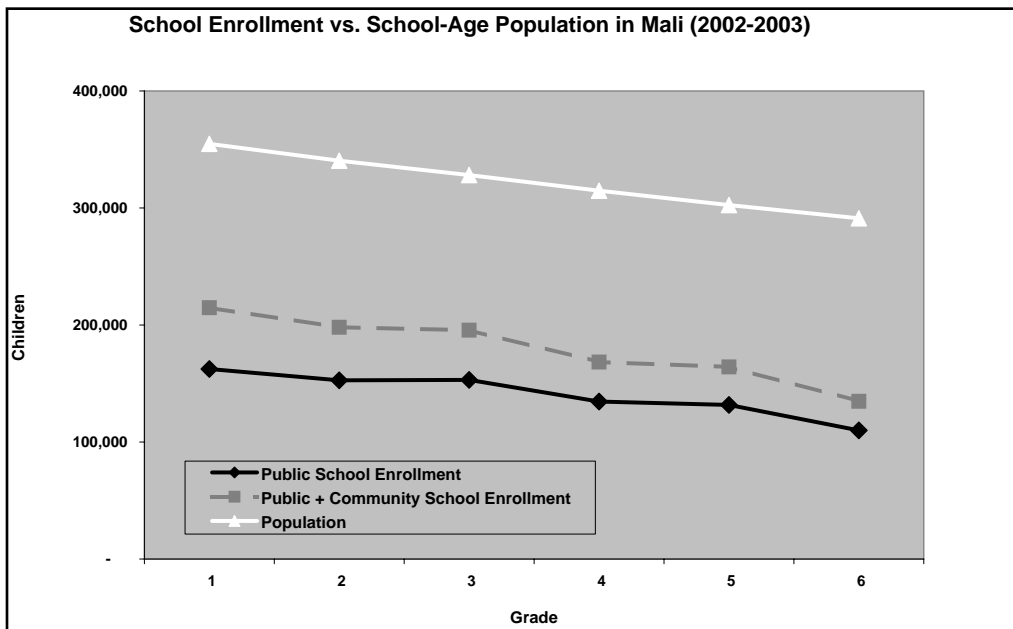
According to a 1994 law, community schools are a subcategory of private schools in Mali, defined as any not-for-profit education center created and managed by a community or association, as opposed to an individual or corporations. The law gave any community the right to open a school and granted official local authority recognition, provided the school met a set of simple criteria, including at least 20 students, a semi-permanent location, and demonstrated respect for the basic education authority's academic orientation. In the interest of further developing community schools, the government published a community school promoter's guide, providing vital advice and information for starting and running community schools.

This case study examines the overall growth and impact of community schools in Mali during the last decade. It focuses on the Sikasso region, where Save the Children and 16 local NGOs, using USAID funds, have supported almost 800 schools—roughly 90 percent of the community schools in that region.

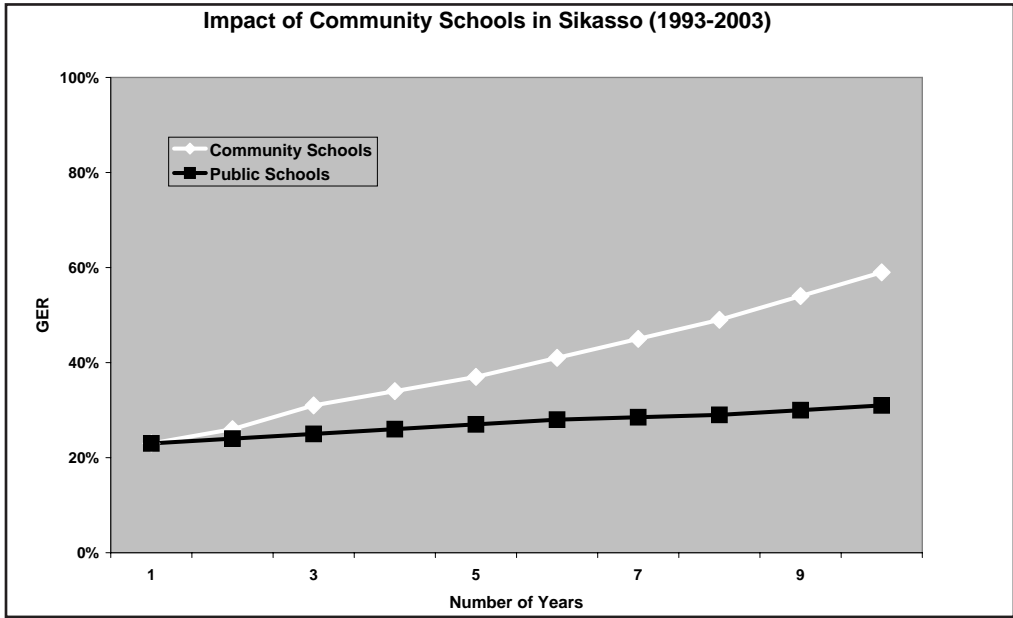
Access

Access to basic education has expanded in Mali during the last 10 years. Improved government support for school construction and teacher hiring enabled enrollment in public schools to increase from just over 500,000 in 1993 to almost 850,000 in 2003, according to the Malian Ministry of Education's 2002-2003 *Annuaire Statistique*. However, as depicted by the following graph, public primary schools in Mali still only accommodated 44 percent of the population of seven to 12 year olds in 2003. At the same time that government-run schools were expanding, community schools grew at an even greater rate. In 2003, public schools added 230,000 single student places and increased the primary gross enrollment rate (GER) to 56 percent, or 67 percent including the 200,000 primary school students enrolled in private schools and medersas.

Malian public schools' intake capacity remains severely limited. In 2002 and 2003, public schools alone had a first grade gross intake capacity equal to 46 percent of the population of seven year olds and a net admission rate of 39 percent. Community schools considerably increased the net admission rate to 53 percent and gross intake capacity to 61 percent in 2002 and 2003, according to the Ministry of Education statistics.



The following graph shows expansion of public and community schools in the Sikasso region from 1993 to 2003. Community school enrollment in Sikasso was negligible in 1992 and 1993 at four schools and 240 students. Public primary schools alone accounted for a 27 percent GER—35 percent for boys and 15 percent for girls. Public primary schooling expanded slowly during the ensuing decade – at a rate of 0.8 percentage points per year – accommodating 35 percent of age-eligible children in 2003. The appearance of community schools accelerated the rate of expansion of access in Sikasso, pushing the GER in primary school for the region to 62 percent. From 1993 to 2003, community schools in Sikasso expanded from four schools to 900 schools, an astonishing example of going to scale, especially when compared to the government's much slower expansion rate of access in Sikasso. When community schools are included, the GER for the region increased by 3.5 percentage points each year, a rate that would allow Sikasso to reach 100 percent in 14 more years.



Completion

It is useful to examine completion from two perspectives. First, how much do community schools in Mali help increase the percentage of 12 year olds with sixth grade educations (i.e., primary school completion)? The Education for All (EFA)-Fast Track Initiative (FTI) goal is to achieve 100 percent completion among 12 year olds by 2015. Secondly, do children enrolled in community schools even reach the sixth grade? These questions facilitate judgment of how effectively these schools educate children, compared to traditional public schools.

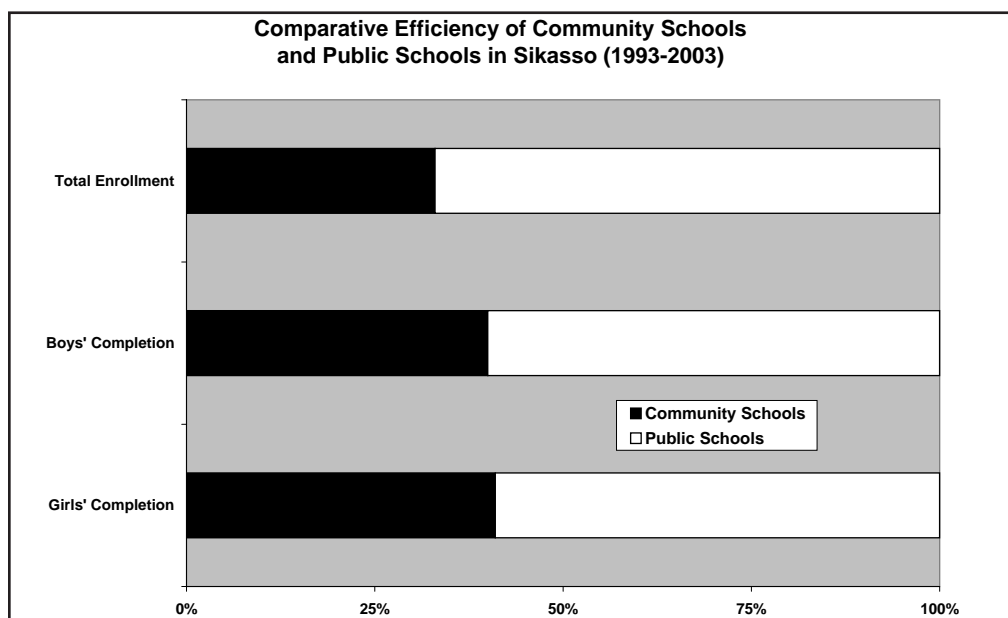
The national completion rate for public primary schools in Mali is extremely low, net sixth grade enrollment is equivalent to only 26 percent of 12 year olds in the country, according to the 2002-2003 *Annuaire Statistique*. By adding students who complete community school, the overall completion rate rises to 33 percent. Sub-national data reveal a public primary completion rate of 22 percent in Sikasso, four percentage points below the national average. Community schools raise the completion rate in Sikasso above the combined national average to 37 percent.

Completion Rates in Community Schools vs. Public Schools by Gender (1993-2003)

		Public Schools	Community Schools	Total
Enrollment	Boys	84,480	42,510	126,990
	Girls	59,871	29,010	88,881
Completion	Boys	28%	19%	47%
	Girls	17%	12%	29%

Community schools, which account for only 33 percent of total primary school enrollment in Sikasso, contribute 40 percent of all boys' and 41 percent of all girls' completion of sixth grade in the region. Public primary school enrollment constitutes 67 percent of total enrollment, but contributes only 60 percent of boys' and 59 percent of the girls' completion. Given their share of

the enrollment in Sikasso, community schools are producing a greater proportion of the boys and girls who reach grade six as depicted in the graph below.



Looking at completion in terms of the rate at which students who enroll in first grade go on to complete sixth grade also reveals that community schools are more effective than public schools in Sikasso. In that region, it is estimated that 56 percent of first graders reach sixth grade in public schools, according to a synthetic cohort analysis of net repeaters from Ministry of Education data. For girls, that figure is estimated at 49 percent. Community schools in Sikasso report an overall sixth grade completion rate of 67 percent and 57 percent for girls in Save the Children's *Annuaire Statistique des Écoles Communautaires, Rentrée Scolaire 2002-2003*. By this measure of completion, community schools are 20 percent more effective overall and 16 percent more effective for girls than public schools in Sikasso.

Learning

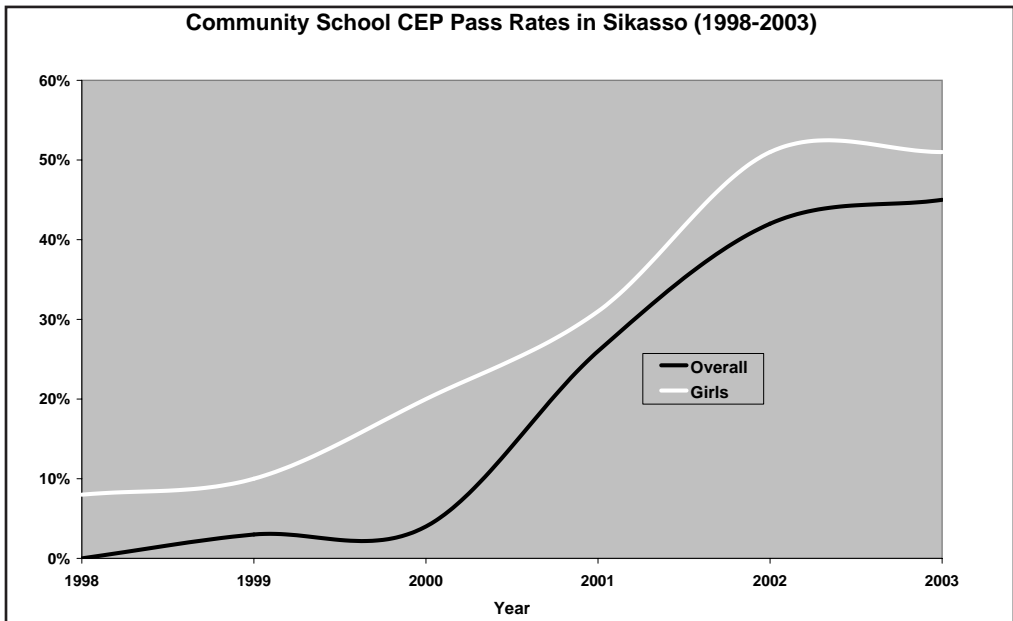
There are no comprehensive data on student learning in Mali. Researchers conducted only one study of learning in Sikasso community schools during the 1990s. The failure to systematically gather data on learning outcomes for students, despite a decade of promoting and funding community schools, is probably the Mali project's biggest shortcoming. The little information available is presented here to gauge learning in community schools compared to public schools.

A study conducted in 1997 evaluated the language and mathematics performance of 30 randomly selected students each from 13 community schools and 12 public schools in the same Sikasso localities, using tests developed with the Institute de Pédagogie National. Because of the difference in language of instruction, community school students were tested in Bambara and public school students tested in French.

The results of this evaluation revealed that community school students scored as well as or better than their public school counterparts in both language and math. Overall, community school students averaged 58 percent correct responses in language and 45 percent in math, according to Muskin in his 1997 Royal Polytechnic Institute Working Paper, *An Evaluation of Save the Children's*

Community Schools Project in Kolondieba, Mali. In reading comprehension, community school students had 37 percent more correct answers than public school students. Girls in community schools outperformed girls in public schools by 35 percent. Students working in their native tongue generally outperform students struggling to learn and complete tasks in a second or third language, in this case French. A surprising outcome of this test, however, is that when both sets of students were given an identical passage of French dictation, 11 times as many community students answered correctly as did public school students. In math, fourth grade students in community schools had 30 percent more correct answers than fourth grade public school students. The study also concluded that while community school students scored better than their public school peers in this test, all groups showed relatively low aptitude.

More recent data indicative of the learning outcomes of Sikasso community schools include pass rates on the Malian primary school completion examination (CEP). In its final report, Save the Children shows CEP pass rates for community school students improving from 8 percent in 1998 to 51 percent in 2003. The graph below shows that the pass rate for girls improved from 0 percent to 45 percent during the same period, according to Save the Children's *Community Schools Final Report, 30 September 1997 – 30 June 2003*. CEP pass rate data for public schools in Sikasso are not available.



Cost and Cost-Effectiveness

Community school costs are examined from several perspectives. What is the total project cost for such an operation? Within that total cost, what does it take to operate a typical community school? What are the major components of those operating costs and what is the cost per student enrolled? In addition to examining input costs, the cost-effectiveness of these schools is then reviewed. Cost-effectiveness is measured in terms of cost to support a single student through completion of primary school.

In a 1997 evaluation, Muskin reported that total USAID funding for Save the Children's work on this project through 1999 was \$6.8 million. Figures from a 1999 analysis show costs for start-up, operation, and management of Sikasso community schools during that decade totaled \$3

million, of which \$2.6 million was for the ongoing operation of schools and their community-based management committees. The average annual recurrent unit cost per student was \$47, broken down as shown in the adjacent table. Additionally, \$7 per student per year was expended for start-up costs, including infrastructure amortized over 10 years and curriculum and materials development amortized over five years, according to Tietjen's 1999 USAID Bureau for Africa Technical Paper, *Community Schools in Mali: A Comparative Cost Study*.

Tietjen's data from Mali for a comparable time period show average recurrent unit costs for public primary schools of \$30 per student, 80 to 90 percent of which is for teacher salaries. It is not surprising that the community schools in Sikasso appear to be more costly on a per student basis than the national average recurrent expenditure per student in Mali. Community schools are by design serving a population and region that otherwise would have limited access to school. This must be compared to what it would cost the government to extend access to the villages served by community schools, and not just to the cost of the government running its existing system. It can be safely assumed that if government were to extend access to the least served regions in Mali, its unit costs would be higher. In fact, community school costs represent the best available example of what it would cost to get the public system to reach the populations it currently does not.

The cost-effectiveness of community schools in Sikasso can be evaluated in terms of their average cost to produce a primary school completer, and in terms of the cost to produce a completer who passes the CEP. Completion rates for community schools in Sikasso in 2003 were 67 percent, compared to 56 percent in the region's public schools. Based on the unit costs presented above, the cost per completing student in the community schools equates to \$421, compared to \$322 for public schools. Community schools have a higher completion rate, so their lower cost-effectiveness is due exclusively to their higher unit costs. While their unit cost is 57 percent higher than that of public schools, their cost per completing student is only 31 percent higher. Community schools in Sikasso have a CEP pass rate of 51 percent and, therefore as cost per student passing that exam of \$825. In public schools in Kolondieba, a subregion of Sikasso, the pass rate is 43 percent, a cost per student passing the exam of \$749, only 10 percent lower than in the community schools.

	Unit Cost	Portion of Total
Teacher Salaries	\$2	4%
<i>Teacher In-service & Support</i>	\$3	5%
Teacher & Learning Materials	\$20	44%
<i>Maintenance</i>	\$2	4%
Management Committee Support	\$13	27%
<i>NGO Operations</i>	\$7	15%
TOTAL	\$47	100%

Critical Features of Community Schools

Almost 800 community schools in Sikasso have been developed through the support of a USAID-funded, Save the Children-implemented project. Of those schools, Save the Children's local field office has directly supported about 130 primary schools and has worked with 16 local NGOs to support an additional 650 to 670 schools, according to Save the Children's *Back to School Report: Community Schools Supported by Save the Children and its Malian NGO Partners, 1998-1999*. All the schools adhered to the same model, which started out providing three years of basic education focused on acquisition of functional literacy in the native tongue. The model evolved to include

the full six-year primary cycle. Community schools therefore progressively introduced French as a subject and medium of instruction in grades four through six. In all cases, the Sikasso community schools are distinguished by certain significant features:

- They are founded and operated by a school management committee (SMC) comprised of locally selected community members.
- The teachers are locally recruited and often have very limited formal education.
- The SMC hires and pays the teachers.
- Children are enrolled in three-year age groups of six, seven, and eight year olds on a triennial basis.

NGOs worked with villages that did not have public schools but had expressed an interest in starting a community school. Traditional village leaders each designated a five-member SMC responsible for compiling a list of children to enroll, setting fee levels, collecting money, identifying and recruiting candidates for teaching positions. The SMC holds all governing and operational decision-making authority for the school, setting the calendar and school hours, managing staff and payroll, and resolving all day-to-day issues. Save the Children or one of its affiliated local NGOs provides training for the SMC, supports teacher and student identification, helps find an appropriate site for the school, supplies furniture and classroom materials, and facilitates the formal relationship between the community school and the local education authority. The community school submits a declaration of opening to the local authorities, allowing the government and education ministry to include it part of their normal inspection and supervision duties and add the data from the school to the national education statistics.

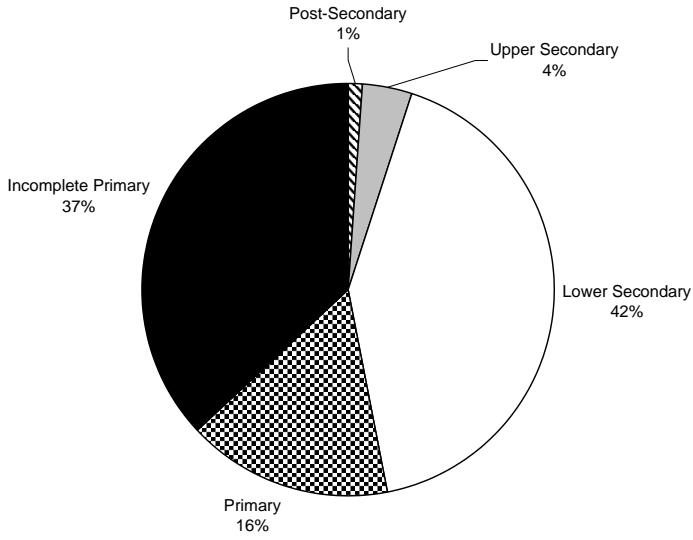
First through third grade teachers are required to live in the village and have at least adult literacy training, in lieu of formal schooling. The NGO provides the initial four-week training over the course of three months and plans a two week follow-up in-service each year. The training program was developed with input from the Malian Ministry of Education and the National Pedagogical Institute. The ministry also created a special category of teachers within the legal framework for community schools, making it possible to hire less qualified teachers and pay them outside the existing salary scales. The same ministerial declaration also gave authority to SMCs to determine the salaries of teachers they employ. In Sikasso, teachers are paid 3,500 FCFA per month, taken from school fees and general village association contributions collected by the SMC, according to Grossman and Millogo in *Save the Children U.S. Village Schools in Mali 1992-2003: A Future to Quality Access?*, prepared for the 2003 Association for the Development of Education in Africa (ADEA) biennial meeting. Teachers often also receive in-kind support from the community.

Initially, the community schools relied on teachers with very low levels of formal schooling. As grades four through six were added, teachers with more academic experience and French ability were needed. Ninety percent of community school teachers have no official teacher certification, compared to 59 percent of public school teachers. As depicted in the Teacher Levels of Education charts below, only 58 percent of public school teachers have completed lower secondary, compared to 42 percent in community schools. Almost four times as many community school teachers as public school teachers have not completed primary school. The majority of teachers in Sikasso community schools still had only primary or incomplete primary education by 2002-03.

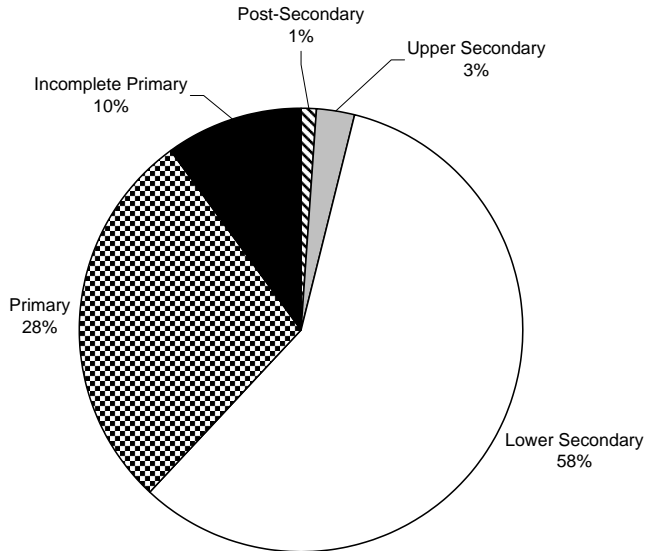
The teachers' lack of formal education is partly compensated for through the ongoing support and supervision provided by the NGOs and the local education authorities.

Within the local education office, one pedagogical counselor is assigned to each community schools and pays visits as often as once a week.

Teacher Levels of Education in Sikasso Community Schools (2002-2003)



Teacher Levels of Education in Sikasso Public Schools (2002-2003)



The teachers' lack of formal education is partly compensated for through the ongoing support and supervision provided by the NGOs and the local education authorities. Within the local education office, one pedagogical counselor is assigned to each community schools and pays visits as often as once a week.

Originally, the community schools were meant to provide functional literacy after three years of schooling, offering students the option to continue on to fourth grade at a traditional public school. In fact, significant policy negotiation in the early years of the project focused on assuring entry into fourth grade for community school students. At the end of the three-year cycle, most villages opted to extend their community schools, adding grades four through six. Now schools focus on preparing students to complete the primary cycle and pass the CEP.

The initial three-year curriculum introduced in Sikasso community schools was developed and adapted from the adult literacy curriculum, which focuses on agriculture and health. The curriculum was organized around village life, agriculture and natural resource management, and health and basic business skills, in addition to reading, writing, mathematics, history, geography, and observation. It was designed to meet the needs of a rural setting. Functional literacy and numeracy skills were combined with life skills and knowledge that would enable children to make better use of their villages' resources, improve their health, and deal with the commercial world. To implement the curriculum, each teacher was supplied with a teaching guide and a local language reader.

Save the Children also promoted a child-centered pedagogy, but two different Sikasso community school evaluations revealed that teachers tended to use mostly traditional methods. Active learning techniques, when attempted, were poorly applied. Students were rarely engaged in activities and did not regularly discussed topics among themselves. For the most part, community school teachers appeared to mimic the pedagogy of traditional formal public schools, with only some evidence of students asking questions or teachers using open-ended techniques encouraged in community schools.

Policy and Institutional Context

Community schools in Mali have evolved from operating outside the official education system to being recognized components of that system. Furthermore, the community school movement of the 1990s influenced the current and future development of Mali's education sector. Community schools gained official recognition as a result of the education laws of 1994, which came about thanks to intense lobbying by the local and international NGO community and pressure from USAID through an explicit condition for its large education program in the early 1990s.

With official status came increased attention and support from the Malian Ministry of Education. This made it possible for community schools to influence how the country and federal government approached its long-term education development strategy. Community schools demonstrated that basic education could be delivered in locally constructed buildings with locally recruited, less qualified teachers and using native local languages under the management and control of the communities themselves. The 10-year program officially adopted by Mali in 1999 incorporates many of these lessons. Most significant is the *pédagogie convergente*, which made native language instruction with French as a separate subject the norm for grades one to three, with the progressive introduction of spoken French as the means of instruction in the upper primary grades.

USAID provided a large share of the financial resources that drove the rapid development of community schools in Mali. During the period from 1997 to 2003, USAID contributed between

\$35 and \$40 million to support the development of community schools. That funding is no longer available. The communities supported through USAID's agreement with Save the Children must now rely entirely on the funds they generate locally to continue to operate their schools. Not only does this present a real challenge to many communities, it also renders community schools inherently inequitable. Why should parents who send their children to public schools not have to pay for the operation of their schools, while parents in villages with community schools cover the entire cost of their children's education?

If the community school movement in Mali can be said to have successfully demonstrated an alternative approach to opening and running primary schools, it can also be said that it has failed to address long-term sustainability and funding, which was identified as an issue as early as 1995 in DeStefano's *Community-Based Primary Education: Lessons Learned from the Basic Education Expansion Project in Mali*, published by USAID in 1996. At no point during its experience in Sikasso did Save the Children address the issue of government funding for community schools. During the course of 10 years' experience, there was no experimentation with new ways for the Ministry of Education to allocate funds to community schools without subverting the local government or CMS's authority, which lies at the heart of this model.

Recently, Mali has negotiated a debt relief program that frees up resources for a monthly 25,000 FCFA stipend to contracted teachers, including 5,000 community school teachers, according to The World Bank's March 2004 *Education for All—Fast Track Initiative Progress Report*. While this provides some needed resources to community schools, it also raises several questions. For how long is the central government committed to paying community school teachers? Is the expectation that responsibility for teacher salaries will eventually revert back to the local SMCs, or do government long-term financial plans include continuing to pay community school teachers? If not and SMCs were struggling to meet the requirements of paying their teachers 3,500 FCFA per month, how will SMCs assume responsibility for this much higher stipend? Furthermore, the funds for the stipends are being allocated through the local education authority, not through the SMCs themselves. This risks severing the employer-employee relationship between SMCs and their teachers.

In addition to questions of equity and financial uncertainty in the future of Malian community schools, the question of quality remains. Available data show that community schools achieve quality roughly equal to what is obtained in public schools.

Evidence suggests that community schools are able to obtain comparable or superior results using teachers with much less education and relying on local management and control, both of which are significant. However, the low level of achievement is clearly still not satisfactory.

The challenge, therefore, becomes greater than just how to assure financial flows so that community schools can continue to operate. Rather, the focus must fall squarely on community school support and improvement so that they can not just produce results comparable to government schools, but provide children in Mali with a solid foundation for future development and learning.

Acknowledgements

This paper was written for EQUIP2 by Joseph DeStefano (Center for Collaboration and the Future of Schooling), 2006. A summary of findings from three case studies, *Meeting EFA: Cost-Effectiveness of Complementary Approaches*, is also available.

Meeting EFA: Zambia Community Schools

Introduction

As a result of the political and economic shifts that occurred during Zambia's transition away from a socialist economy in the early 1990s, many Zambians became concerned with the country's large number of uneducated children. Communities began forming their own schools, usually in the absence of a nearby public school and/or in response to the inability of families to meet the costs associated with government-provided schooling. Supported by local and international nongovernmental organizations (NGOs) and, most importantly, embraced by the Zambian government, these local initiatives have grown into a national movement. The country's current education sector plan recognizes the critical role community schools play in contributing to realizing education for all (EFA), as evidenced by the following direct quote from the 2001 Ministry of Education "Policy and Guidelines for the Development of Community Schools in Zambia:"

The Ministry recognizes that over the last four years two kinds of successful alternative approaches that address enrolment of orphans and vulnerable groups have already been established. Therefore new agreements and memoranda of understanding will be developed with community schools and interactive radio centres to provide specific access for out-of-school children. These agreements will increase Ministry support through grants and materials while still preserving strong community ownership.

Since 1998, the government has officially recognized community schools and has been working in partnership with the Zambia Community Schools Secretariat (ZCSS), an umbrella NGO for community schools, to promote their development. As many as 500,000 students are estimated to attend community schools—approximately 20 percent of the total basic education enrollment in Zambia.

The impact of the HIV epidemic is one reason cited for the growth of community schools in Zambia. Almost 1 million people in Zambia are living with HIV/AIDS. The population of orphaned children grows as more and more adults succumb to the disease. More than 700,000 children have lost one or both parents, accounting for 15 percent of the population under 15 years old. Schools have to address the needs of these alarming numbers of orphaned children, and community schools have helped provide viable options in ways that public schools have not. According to a CARE Zambia study in 2005, approximately 500,000 orphans were enrolled in basic schools in 2004. Orphans account for 13 percent of the public school student body and almost a third of community school enrollment, according to the Zambia Ministry of Education 2004 "Free Basic Education Policy Implementation Assessment." The HIV/AIDS epidemic and the fiscal crisis confronting the country over the past 10 years represent two notable factors contributing to the accelerated growth of community schools in Zambia since the mid-1990s.

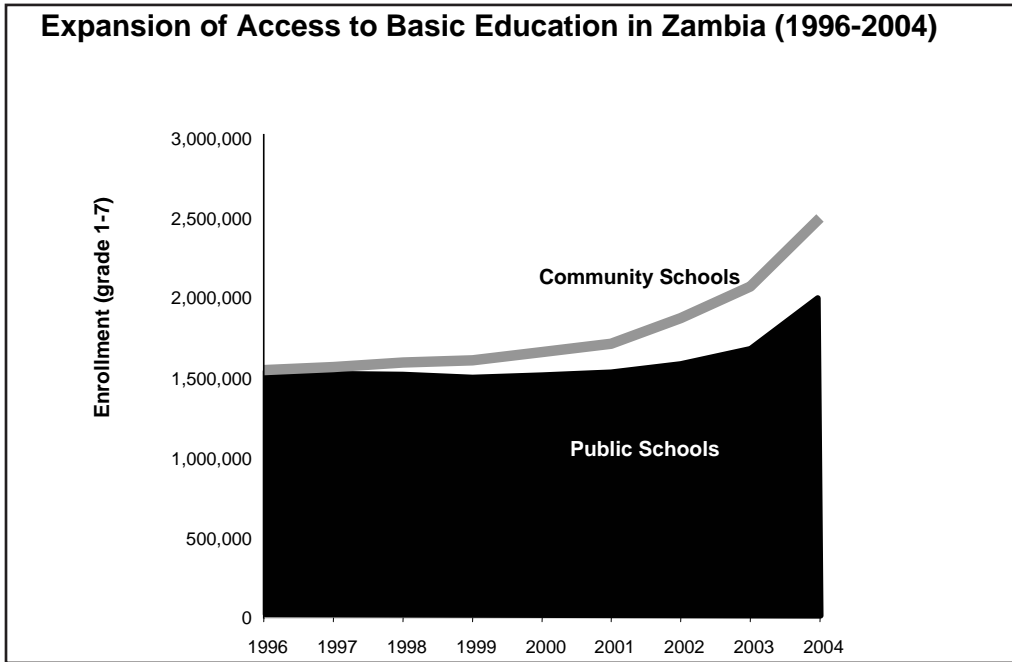
This case study examines community schools in Zambia in an attempt to assess the contribution they make to meeting the educational needs of students and, in particular, orphans and vulnerable children.

Access

Data on community schools are maintained by ZCSS and through the annual school census conducted by the Ministry of Education. However, the failure of all community schools to return their annual school statistic returns has hampered the compilation of data on community schools by the Ministry. For this reason, the Ministry and ZCSS report drastically different numbers of

community schools. According to the Ministry's 2004 data, 1,338 community schools enrolled just over 230,000 students. The ZCSS reports 3,009 schools with a total enrollment of approximately 500,000.

Based on the ZCSS data, community schools increased enrollment in basic education in Zambia by 25 percent in 2004. The graph below—based on official figures for public schools and estimates of community school enrollment taken from Kanyika, Sakala, Mwale, Musuku, Mweemba, and Nakazwe-Musakanya's 2005 *Learning Achievement at the Middle and Basic Level, Zambia's National Assessment Survey Report – 2003* as well as data collected by CARE Zambia—shows the growing contribution of community schools to basic education access in Zambia over the last 10 years.



In 2002, the Zambian government declared basic education free. All schools were directed to stop charging any form of fees for pupils in grades one through seven, and uniforms were no longer compulsory. Furthermore, the government directed that no pupil should be denied enrollment or excluded from school because of an inability to pay any levy. As shown in the preceding graph, enrollment in basic education did increase by 30 percent from 2002 to 2004. During the same time period, community schools expanded along with access to public schools. By design, community schools most often serve the poorest, most vulnerable children in Zambia.

Most experts assumed that the implementation of free basic education (FBE) would draw students from community schools into public schools. However, according to the Zambia Ministry of Education 2004 "Free Basic Education Policy Implementation Assessment," more pupils have moved from government to community schools since FBE, implying that community schools in Zambia are addressing other constraints that are equally or more important to families than the direct costs of schooling.

It should be noted that FBE policies actually increased the cost of education in some cases because public schools often charge user fees despite the FBE policies. User fees are often higher than the previously negotiated fees. In these cases, student movement to community schools may be

attributed to cost because user fees in community schools are almost always less than public school fees.

National estimates indicate that in 2000, over 570,000 children age seven to 13 years old, or roughly 30 percent of the school-age population, were not in regular school. By 2003, the number of out-of-school children decreased to 480,000, or 23.4 percent. Including community school enrollments, the number of out-of-school children is only 340,000, or 16.6 percent of the school age population, all according to the Ministry of Education 2004 “Free Basic Education Policy Implementation Assessment.” As stated earlier, the most recent estimates indicate that 30 percent of community school enrollments are children who have lost at least one parent.

The 2005 CARE Zambia report profiles seven community schools and one public school. For the six community schools that have disaggregated data, 100 percent of the children enrolled were categorized as orphaned or vulnerable and 56 percent as children who have lost one or both parents. Vulnerable children were defined as children who are inadequately cared for as a result of their parents’ socioeconomic status.

Community schools in Zambia also consistently serve more over-age students than public schools. Based on official statistics in *Learning Achievement at the Middle and Basic Level, Zambia’s National Assessment Survey Report – 2003*, as opposed to the higher ZCSS figures, more than half of community school students are over age 14, while only 28 percent of public school students are over age 14.

Community school students’ households are poorer than public school students’. Less than one-third of community school families live in permanent structures, compared to 46 percent of public school families. Students attending rural community schools are 13 percent more likely than rural public school students to report never having breakfast before school. Urban community school students are almost 1.5 more likely than urban public school students to report never eating breakfast at all, according to Kanikya, et al.

Community school families have less education on average than the families of students enrolled in public schools. Half of the fathers or male guardians of community school students have primary education or less, compared to 32 percent of public school students’ male guardians. More than twice as many public school male guardians have a certificate or degree. Female guardians of community school students are twice as likely as female guardians of public school students to have no education. Consequently, community schools students are more likely to speak only a local language at home, according to Kanikya, et al.

Community schools have grown in response to the need to provide schools to disadvantaged families and children in Zambia and clearly offer an important complement to public schools. More than twice as many public school students in rural areas report having to walk more than one hour to get to school, according to Kanikya, et al.

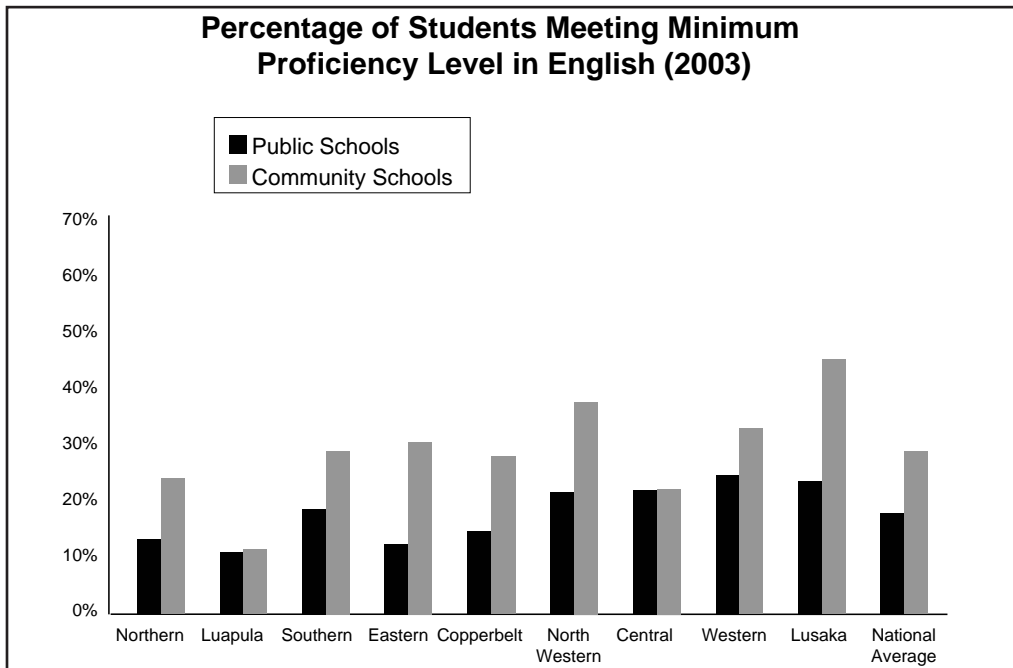
Learning

In 2003, the Examinations Council of Zambia undertook a comprehensive sample-based assessment of student learning in primary school. Grade five students in public schools were scientifically sampled from urban and rural areas in all nine provinces. Two hundred fifty public schools were included in the sample, for a total of 5,000 students. Additionally, for the first time, the 2003 assessment also included a sample of 100 community schools drawn from each of the nine provinces. The Examinations Council selected community schools that were “relatively stable

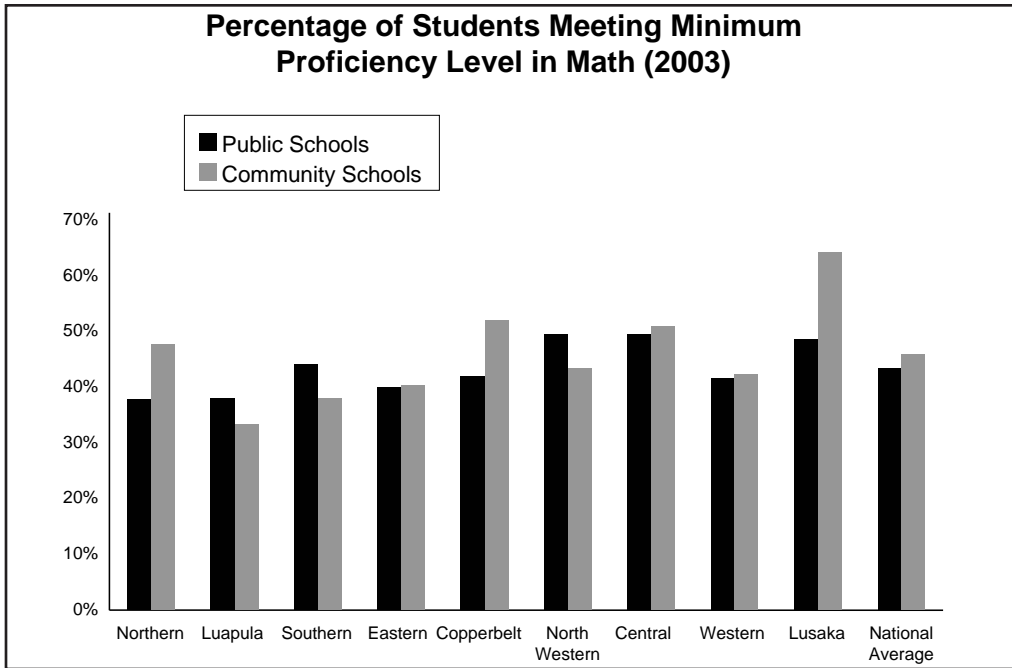
and enduring schools with fairly sizable enrolments,” according to Kanyika, et al. on page nine of *Learning Achievement at the Middle and Basic Level, Zambia’s National Assessment Survey Report – 2003*, for tests in English, math, and Zambian language.

Students’ test results are evaluated against the established national norm for minimum and desirable levels of proficiency. In both English and math, the minimum level of proficiency for the fifth grade in 2003 is defined as a score of 40 percent correct. The desirable level of proficiency for fifth grade English is 71 percent and 60 percent in math. The following graphs show the percentage of students meeting minimum levels of proficiency in 2003 in each province for both community and public schools, taken from *Learning Achievement at the Middle and Basic Level, Zambia’s National Assessment Survey Report – 2003*.

In 2003, 29 percent of community school students met minimum proficiency in English, compared to 18 percent of public school students. Additionally, community school students outperformed public school students in English in every province, as shown in the following graph. In particular, the percentage meeting the minimum proficiency level in English far surpassed the percentage of public school students meeting that level in the Northern, Southern, Eastern, Copperbelt, North Western, and Lusaka provinces. ZCSS reports the portion of students meeting minimum proficiency in English at 35 percent for public schools and 40 percent for community schools.



In math, 46 percent of community school students met minimum proficiency, compared to 43 percent of public school students. Community school students outperformed public school students in the Northern, Copperbelt, Central, and Lusaka provinces while Public school students did better than community school students in the Luapula, Southern, and North Western provinces. For 2004, the CARE Zambia report finds that 36 percent of public school and 45 percent of community school students met minimum proficiency in math.



It is important to note that community schools vary greatly, ranging from the most basic attempt by a community to meet the education needs of its children to schools that include support from an on-the-ground, nongovernmental or faith-based organization. It would be misleading to generalize that these different kinds of community schools are all equally able to effectively educate poor and vulnerable children.

Costs and Cost-Effectiveness

Data on costs for community schools were extremely difficult to find. Given the variation among community schools, especially between those that operate independently and those that are supported by a project of some kind, generalizing based on existing data would be misleading.

The CARE project in Kopano has provided some data on the costs associated with a community school. These figures are a good estimate of the costs of a supported school in which the teachers receive training and small incentive payments, teachers and students are provided materials, and other organizations invest in school and community capacity building. CARE reports providing just over \$20,000 of recurrent support to a school that has 525 students and seven teachers. The components included in that total are shown in the following table.

Recurrent Costs of a Community School in the CARE Kopano Project

Recurrent Cost Components	Cost	Portion of Total
Teaching and learning materials	\$3,477	17%
<i>Teacher honoraria</i>	\$2,864	14%
Teacher training	\$5,600	28%
<i>Capacity building</i>	\$8,000	39%
Sports and recreation	\$352	2%
TOTAL	\$20,293	100%

CARE provides basic resources to the 10 community schools it supports in the Central, Lusaka, and Southern Provinces:

- Texts for teachers and students, usually one book per teacher and one for every two students to share in the four subject areas of English, math, science, and social studies;
- Training for teachers and Parent Community School Committee (PCSC) members;
- Stipends of roughly U.S. \$34 per month for teachers; and
- Some equipment for sports and recreation.

Teacher training and PCSC capacity building represent the largest portions of a community school budget. Based on these estimates, community schools supported by CARE's Kopano project have annual unit costs of roughly \$39 per student enrolled.

The government of Zambia had recurrent expenditure for basic education of approximately \$147 million in 2004. Students enrolled in basic education in public and grant-aided schools in that year numbered 2.2 million, for a recurrent annual per pupil cost of \$67. The following table compares the cost-effectiveness of community schools and public schools in terms of unit costs, costs to produce a seventh grade completer, and costs to produce a desired level of learning.

Estimated Per-Pupil Unit Costs in Community and Public Schools

Cost Component	Community Schools	Public Schools
Recurrent costs per student	\$39	\$67
<i>Completion rate</i>	72%	72%
Cost per completer	\$376	\$655
<i>Portion of students achieving minimum standards</i>	43%	36%
Cost per student meeting minimum standards	\$885	\$1,845

In the CARE Zambia sample of cases, community schools were more cost-effective than public schools despite enrolling poorer, more disadvantaged students. This stems primarily from their much lower per-student costs and their better learning outcomes. A higher percentage of community school students meet minimum standards in both English and math. Using these statistics, the ZCSS successfully lobbied the Ministry of Education to mandate 30 percent of funds in one district to community schools.

Critical Features of Community Schools

Community schools are difficult to describe in general terms because they are managed locally and vary widely in character, organization, and operation, whereas public schools are managed centrally and are, therefore, more uniform. This case study attempts to highlight the characteristics that distinguish community schools from typical public schools, including management and governance, teachers, and curriculum.

Management and Governance

Community schools in Zambia can be classified into three categories. Those launched by a community on its own tend to be under-resourced and rely almost entirely on the initiative and will of the members of the local community. The ownership and management of the school are in the hands of the PCSC representatives. Other schools are started and supported by an NGO or a faith-based organization with the intention of eventually turning over ownership and operations to a PCSC. However, this does not always happen, in particular with schools sponsored by faith-based

organizations. In many cases, the organization remains primarily in charge of the school through an appointed board of its own representatives and offers more resources to the school. Other schools are launched by individuals and are typically run more like private schools with little or no community involvement and no PCSC. The nature of these schools depends entirely on the resources and will of the sponsoring individual. In rural areas, a community school is usually started where no public schools are located within walking distance. In urban areas, a community school is started where there is a large concentration of children who are not able to access a public school due to cost and other factors. In all situations, the demand of out-of-school children drives the creation of schools.

A school is formally recognized and registered by the ZCSS or Ministry of Education if it enrolls children who:

- Have never been to school but are older than the age of entry to basic education;
- Have no other education alternative in the community;
- Are orphans or otherwise vulnerable children; and
- Are disadvantaged with regards to access to the school system or cannot pay fees.

However, most schools are started without the prior knowledge of the Ministry and ZCSS. Communities, local organizations, or individuals simply decide to start a school to meet an identified need.

The ZCSS lists specific criteria for community schools to pass through three stages of accreditation: developmental, intermediate, and full. Criteria related to infrastructure, enrollment, teachers, curriculum, and materials are specified for each stage. NGO- sponsored or -supported schools can receive the following kinds of assistance towards meeting those criteria:

- Training for teachers and PCSC members;
- Scholarships for teachers to attend teacher training colleges and obtain teaching certificates;
- Investments in school infrastructure, including the provision of school furniture;
- Provision of teaching and learning materials, including textbooks; and
- Development of sanitation and water facilities

Community schools are owned and managed by their PCSCs unless an NGO, faith-based organization, or individual retains the ownership and management rights. The PCSC registers the school with the government, formulates a school constitution, recruits teachers, draws up development plans, and obtains funding. PCSC membership varies from community to community, but usually includes seven to 10 members (e.g., parents, teachers, school supervisor, a prominent individual from the community, local police officer, health worker, public school teacher). The role of the PCSC is to provide the school oversight in all matters—administration, management, supervision—and specifically has responsibility for:

- Mobilizing resources for the school, including supplies obtained through ZCSS;
- Finding school premises and setting up the infrastructure;
- Recruiting and selecting teachers and securing resources to pay their allowances;
- Appointing a school supervisor;
- Monitoring and supervising teachers and disciplining or dismissing them as necessary;
- Enrolling pupils and ensuring appropriate targeting of orphans and vulnerable children;
- Sensitizing parents and the community to the importance of girls' education; and
- Monitoring curriculum to ensure conformity with the national curriculum.

The PCSCs officially meet every month. There is also an annual meeting with the public to reflect on the school's progress, report on finances, and make plans for the coming year. Community schools hold annual meetings to reflect on lessons learned throughout the year, report on finances, and make plans for the coming year. This meeting provides an open forum for individuals to voice their opinions and state their priorities for the local learning environment. This process also engages a variety of stakeholders in developing a vision for their community school.

Community schools' teachers and supervisors are accountable to the PCSC. In addition, the District Education Standards Office is supposed to visit community schools to observe classrooms, review lesson plans, and manage other tasks. However, this oversight function is carried out inconsistently. Often, the lack of dependable support from Ministry offices compels PCSC members to supervise teacher quality themselves.

The Ministry of Education and/or the ZCSS evaluate whether a school is meeting accreditation standards and whether the community approves of the teaching and learning taking place in the school. The ZCSS consistently lobbies the Ministry of Education to relax standards for opening and registering community schools. As a result, community schools start out following minimum standards while public schools follow conventional standards.

Communities evaluate their schools based on seventh grade end-of-cycle examination pass rates. Increased pressure on community schools to adopt the official government curriculum stems from communities' desire to have students pass this exam, on which admission to upper basic education depends.

The ZCSS annually collects information on new and established community schools, as does the Ministry of Education as part of its annual school census. The ZCSS and Ministry are collaborating to make their data collection efforts more compatible. The ZCSS is working to make sure all community schools are included on district and national education management information system (EMIS) databases. At present, almost 50 percent of community schools are not included in the EMIS. Community schools must register with the ZCSS and Ministry and complete the annual school census form in order to be eligible for government funding.

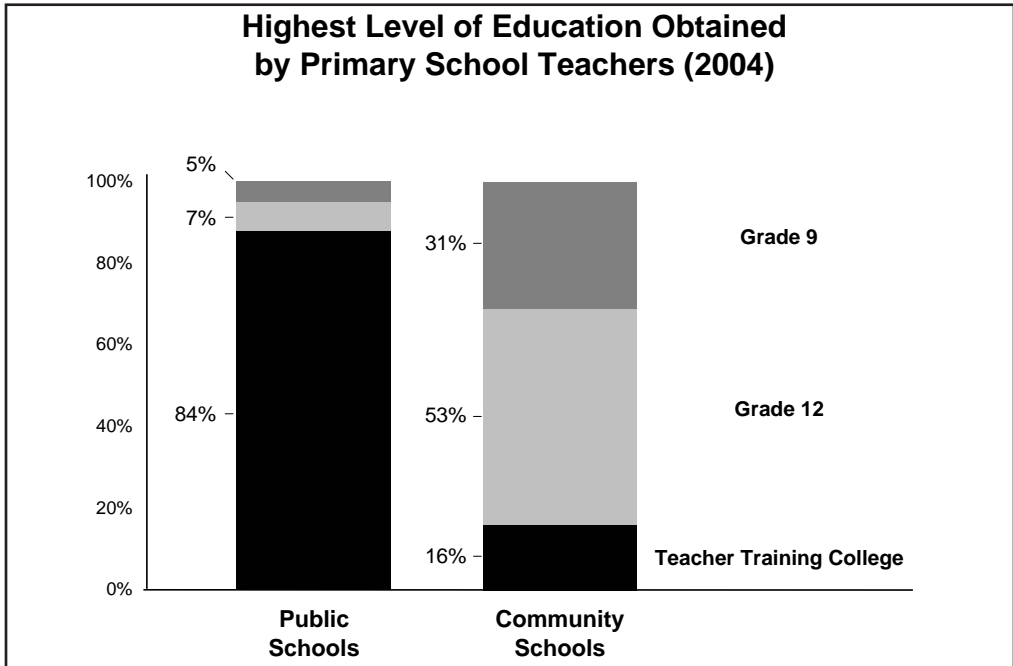
Teachers

Teachers in community schools have less formal education and less experience teaching specific curricula than their public school counterparts. Public school teachers are officially required to have a primary teacher certification, which requires a two-year course at a teacher training college. Teachers who have a primary certificate are eligible to upgrade to a diploma or Bachelor of Arts degree. Teachers in community schools are supposed to have completed senior secondary school through grade 12. The graph below shows the actual levels of education of the teaching corps in public and community schools according to 2004 Ministry of Education official statistics.

While the vast majority of public primary school teachers have attended teacher training college, only 16 percent of community school teachers have. In fact, almost a third of community school teachers have only a lower secondary education. Most of these teachers are in rural areas. In urban areas, most teachers are better educated, but have a higher turnover rate.

Community school teachers are recruited locally by a school's PSCS. Teachers in community-initiated schools are recruited on a volunteer basis, with promises for occasional in-kind compensation. Teachers receive an allowance in schools supported by NGOs or faith-based organizations. For example, under the government's BESSIP program, which ended in 2004,

community schools were able to use up to 20 percent of their grant money to pay teachers allowances. The amount of allowances varies from \$11 to \$22 per month in rural areas and from \$33 to \$50 per month in urban centers. Public school teacher salaries range from \$170 to \$341 per month, depending on qualifications and years of service.



Training for community school teachers is assured primarily through donor-funded and/or NGO-supported projects. For example, CARE is coordinating with other NGOs, donor agencies, and the District Education Board Secretariats to avoid duplication and ensure an appropriate sequence of training for community school teachers. For example, in many schools supported by NGOs, new community school teachers are trained in the 12 basic skill areas of the primary school curriculum. They are then trained in classroom management, use of locally developed teaching and learning materials, and curriculum planning. Individual schools are supported in taking the initiative to identify the training needs of their teachers. For example, the Simatobolo Community School in rural Livingstone District placed an emphasis on improved teacher qualification as a key strategy for improvement of teaching and learning reading. The school is working with an NGO to have its two teachers, both of whom dropped out in grade 12, obtain primary certificates through the long-distance teacher training program at the Livingstone Teacher Training College, according to CARE Zambia.

In addition to the training supported by NGOs or donor projects, public schools also serve as zonal and district resource centers for community schools. Often twinning relationships are set up between community schools and nearby public schools. School-based resource centers act as training sites for teacher professional development workshops. The public school teachers may also serve as mentors for the community school teachers. A close collaboration between community and public school teachers has caused similarities in instructional approaches and sharing of teaching resources. The Ministry of Education also, when possible, will send government teachers to community schools while continuing to pay their salaries.

Curriculum

Community schools are flexible in their enrollment and structure. No age limits are imposed on prospective students, and schools initially tended to enroll older students. In fact, preference was often given to older learners who either had not had a chance to enroll in school previously or who had dropped out. Often, in rural areas, schools employ multi-grade teaching.

Many community schools previously used the curriculum developed by the United Nations Children's Fund (UNICEF) focused on skills, participation, and access to relevant information (SPARK). SPARK is an alternative curriculum for accelerated learning, designed for students who enter school at an older age. It compresses the seven grades of formal basic education into four years.

The SPARK curriculum focuses on helping the illiterate or semi-literate child acquire practical skills so he/she may become a productive citizen in the local community. The curriculum was not designed to be examinable and, thus, those passing out of the SPARK program were not expected to continue schooling. After completing the four-year curriculum, students are expected to proceed to a skills class focused on practical training (e.g., woodworking, metalworking, tailoring). However, very few community schools offer these skills courses, and those that do have difficulty retaining students because most learners want to continue an academic education in a secondary school.

Two things have contributed to a movement away from the SPARK alternative curriculum and towards the official Zambia Basic Education Curriculum among community schools. First, community schools are now enrolling students who are closer to the target ages for formal basic education—seven to 14 years old—and SPARK was not designed for younger learners. Second, the SPARK does not fully cover the official curriculum and, therefore, does not adequately prepare students for the national examination at the end of the basic education cycle. Community schools increasingly prefer the official curriculum and are converting to a full seven-year cycle in order to compete with public schools in exam scores. SPARK is being used only for older students who are not expected continue past primary schools.

The Zambia Basic Education Curriculum includes:

- Literacy and language (i.e., Zambian languages, English);
- Mathematics;
- Science;
- Social studies (i.e., history, geography, religious studies);
- Technology studies (i.e., industrial arts, woodwork, home economics); and
- Expressive arts (i.e., physical education, music, art).

Another contribution to community school teaching and learning has been the curriculum and direct instruction delivered through interactive radio. Interactive radio instruction was initially started for vulnerable out-of-school children in very remote areas or in places where there were no education services. Centers are set up in communities where the radio broadcasts can be received, and a local mentor is recruited and trained to follow a manual that supports the broadcast lessons. The radio instruction targets literacy and numeracy in local languages and English, following the official curriculum in those subjects.

The interactive radio program has been incorporated into many community schools, where teachers report finding the radio-based instruction very useful. ZCSS has also capitalized on the spread of interactive radio centers by converting some centers to full-fledged community schools, with PCSCs willing to put up permanent structures for them.

Policy and Institutional Context

Education in Zambia, like in many Sub-Saharan African countries, was for a long time firmly controlled by the government. For the first decades of independence, a centralized, state-dominated approach to all aspects of the country's development carried over into the education sector. Communities participated little in running schools. In the 1990s, two factors combined to spur the development of community-based approaches to education. The transformation of Zambia to a more democratic, market-oriented government and economy increased the scope for communities and nongovernmental actors to participate in all aspects of society. At the same time, the impact of the country's economic decline and the HIV/AIDS epidemic meant many communities had to fend for themselves. Increasing numbers of families were marginalized, as evidenced by the 1990 census, which revealed that 44 percent of children ages seven to 18 years old were out of school. Many of those children were orphaned or otherwise vulnerable. Communities themselves or with the aid of civil society organizations opened schools in an attempt to accommodate this large group of neglected children.

Burgeoning community and nongovernmental initiative led to the rapid growth of community-based schooling. The government of Zambia responded by recognizing community schools as a viable alternative or complementary system for providing educational opportunities to disadvantaged children. Community schools were officially recognized by the Ministry of Education in its 1996 "Educating Our Future, National Policy on Education." That policy states:

The Ministry will assist communities and voluntary organizations that wish to develop their own schools by providing them with technical assistance and guidance, supporting their efforts to mobilize funds and resources, supplying the new schools with educational materials, and providing them with an agreed number of state-funded teachers.

In that same year, a group of NGOs formed the ZCSS to serve as an umbrella organization coordinating the opening and operation of the growing number of community schools.

In 1998, the first memorandum of agreement between the Ministry of Education and ZCSS was signed, conferring official recognition on the ZCSS as the sole umbrella body for community schools. The memorandum formalized the arrangements through which a community or nongovernmental initiative would be complemented by government endorsement, support, and resources. Communities, NGOs, and faith-based organizations became free to start schools. When those schools can meet pre-determined criteria, they are eligible for state accreditation and direct support. Specifically, as indicated in the recently updated memorandum of agreement, the Ministry commits to ensuring the overall development of community schools on an equitable basis, including:

- Sending teachers appointed by the national Teacher Service Commission to community schools and paying their salaries;
- Providing for the continued support and in-service training of teachers in community schools;
- Providing grants to community schools that meet the Ministry of Education and ZCSS accreditation criteria;
- Including community schools in all standards monitoring;
- Providing infrastructure improvements, furniture, and materials to community schools; and
- Giving financial, logistical, and other support to the ZCSS.

Policymakers in Zambia have recognized that community and NGO efforts offer the best possible means to ensure schooling for disadvantaged groups, in particular orphaned and vulnerable children. They also recognize that government effort and resources could best be deployed to complement community initiative, as exemplified by this statement from the 1996 Ministry of Education “Educating Our Future, National Policy on Education:”

Communities that wish to establish schools, that would operate as community schools outside the government or District Education Board system, will be strongly encouraged to do so. The ministry will contribute to the running costs of such schools through the provision of teachers and teaching supplies, or through a system of capitation grants.

Up until 2005, each community school was given approximately \$634, 20 percent of which was used to pay teachers’ allowances. For the 2005 school year, the Ministry of Education directed districts to allocate their Sector Pooled Fund on the following basis: 70 percent to government basic schools and 30 percent to community schools. However, teachers’ allowances may not be paid from these funds. Only schools that have functioning PCSCs and that have been in operation for two years are eligible for these grants. In 2001, the Ministry of Education formally recognized the district and zonal community school committees as parallel to regional government offices. Representatives from these committees, now sit in Ministry offices and report to regional officers. Additionally, ZCSS has established provincial program officers who liaise between community school committees and government officials.

In addition to grants-in-aid, the government, in consultation with ZCSS, reserves a number of places in teacher training colleges every year for qualifying community school teachers. Community school teachers are given priority for admission by the training colleges. When they have completed their two-year college course, community school teachers agree to return to their communities and the Ministry of Education agrees to officially recognize them and put them on the government payroll.

Conclusion

The Zambia community schools provide a case in which government, through the Ministry of Education’s Sector Wide Program (SWAP), recognizes the importance of community schools in meeting the challenge of HIV/AIDS, orphans, and the disadvantaged. The Ministry of Education has established policies for a partnership between government and community schools, which includes a key role for a national level nongovernmental association, the ZCSS. This association provides legitimacy for the community schools based on a set of criteria and a review process for registration and support. Further, government policy has provided for the use of public funds, channeled to registered community schools as a sector investment strategy. The result of these policies is that the community schools have demonstrated exceptional capacity for reaching orphans and the poor and for providing an education environment where they are actually outperforming public school students.

The case seems to suggest that the organization of schools by communities, drawing on largely volunteer teachers who are provided a manageable and relevant curriculum under the supervision and support provided by NGOs and a national association, can perform exceptionally well. By providing up to 20 percent of Zambia’s underserved children and youth with quality basic education, the community school movement is making a significant contribution towards EFA goals.

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Introduction

A cost effectiveness analysis with a qualitative component was used to achieve the objectives of this study. Cost effectiveness analysis is designed to compare the costs and results of two or more alternatives with similar objectives to allow decision-makers to then choose among the best alternatives. The measures of effectiveness that are chosen should reflect as closely as possible the main objective of the alternatives to provide the best results. Cost effectiveness is important because it can lead to the more efficient use of educational resources; reduce the costs of reaching particular objectives; and it can expand what can be accomplished for any particular budget or other resource constraint. It allows for decisions to be made that lead to the attainment of a given level of effectiveness at a minimal cost. The cost analysis sought to answer the following questions:

- Do complementary models of education contribute to the EFA goals of access, completion and learning?
- Do the complementary models do so in ways that are cost effective?
- If the models are effective and cost-effective, what are the features of the model/system schools that contribute to access, completion and learning?

Definition of Complementary Education

Complementary education models are defined as programs that organize basic education in regions of developing countries that are least served by the formal education system. The models are complementary because the programs serve to support the formal education system to reach EFA goals, offering students an alternative route to achieving the same educational outcomes as students in the government system. Through the use of a similar curriculum, the models also assist in integrating students back into the formal system at various entry points.

Selection of the Cases

Nine case studies were selected for this study based on regional representation and the following characteristics.

- The model had to be established and functioning for at least five years;
- The model had to be large enough to exhibit many of the same characteristics as mainstream schools;
- The model had to offer the same, or similar educational outcomes as mainstream education;
- The model had to serve underserved populations, including but not limited to rural, girls, and/or disadvantaged populations.
- The model had to rely on community, non-governmental, and/or Ministry collaboration and present a promise of responding to the challenge of reaching EFA; and
- The model had to function in support of the public education system, rather than serve as an alternative to it.

Approximately twenty-five complementary education programs were identified in the regions of Asia near East, Africa, Latin America, and Southeast Asia. The final cases were then selected based on the characteristics described above as well as the programs' ability to provide data on access, completion, learning, major program components, and costs. The final set of cases included: Afghanistan COPE schools, Afghanistan Home-based schools, Bangladesh Rural Advancement Committee (BRAC) schools, Egypt Community Schools, Ghana School for Life, Guatemala PRONADE, Honduras Educadores program, Mali Community Schools, and the Zambia Community Schools.

Data Collection

Secondary data sources were the primary method for collecting both cost and program data used in the case studies. Data were collected in the areas of effectiveness, quality, staffing, governance and management, policy environment, and costs. In the case of BRAC, Egypt, Ghana, Honduras, and Mali, the program and cost data were obtained from project documents such as mid-term and final evaluations, quarterly reports, final reports, and project budgets. These reports were then analyzed by the research team using the data collection protocols described below. In Guatemala, the PRO-NADE office in MINEDUC provided the necessary cost information and secondary sources were used to analyze and describe the program itself. In Afghanistan and Zambia, program staff collected the necessary data and drafted the initial case studies. Those cases were then finalized by the research team.

The data collection templates are found at the end of this annex.

Data Analysis

A case study approach was used for this study. The case study approach allows the researcher to fully understand or depict client's experiences in a program, and conduct comprehensive examination through cross comparison of cases. Each of the nine complementary models were individually analyzed in terms of access, completion, cost of the programs and cost-effectiveness against access, completion and learning. The results from each case study were then synthesized in a summary paper.

Costs

The costs of the complementary programs were compared to the public education system in each respective country. The research team tried to distinguish between the costs of development (designing and initial implementation) and the recurrent costs of running the program to be able to better analyze initial investments against recurring investments. The following costs were compared.

Development costs

Development costs include the development of materials, curriculum, program design, technical assistance for design and implementation, and initial supplies. The costs were obtained mainly from proposed budgets provided by the respective NGO or donor. The development costs did not include any capital investment costs. In all cases, the development costs were borne almost entirely by international NGOs or donors. Development costs in the government schools were not available. However, since overall Ministry budgets were used to obtain unit costs for the government schools, the costs of curriculum and materials development are included, though not explicitly.

Recurrent costs

Recurrent costs are the costs of operating either the government schools or the complementary programs in a given year. An effort was made to collect data from the complementary programs that reflected similar categories to data collected and reported under recurrent costs for the traditional system. The categories included:

- *Salaries and wages*: Annual cost of paying the staff responsible for provision of education.
- *Travel and transportation*: Annual cost of travel and transportation including, but not limited to the cost of visiting schools, travel to training workshops, and travel to and from home to the schools.
- *Materials and supplies*: Annual cost of providing learning materials.

- *Supervision and training:* Annual costs of providing supervision and support to teachers as well as additional training workshops.
- *General operational costs:* Annual costs of items such as administration of the program, honoraria, costs of school nutrition programs, etc.

The recurrent costs are primarily budget figures taken from programmatic budgets versus actual expenditures in both the complementary models and for the public education system. The Educadores Program in Honduras is an exception where the research team was able to obtain actual expenditure data in most years for both program and public education system. In the case of the government schools, the national budget for primary education was used, which included both salary and non-salary costs. Capital investment costs were not included in either calculation. The total recurrent costs of the complementary education programs and the government schools were divided by the enrollment to obtain a per pupil cost.

In all cases, NGOs contributed either all or a portion of the recurrent costs. Recurrent cost calculations also took into account (where available) community contributions which ranged from providing food for students in some cases to paying for teacher salaries (in-kind or financially) in other cases. In Honduras, the Ministry of Education contributed approximately 32% to the complementary programs to assist in covering the recurrent costs. In Guatemala, MINEDUC contributed approximately 15% of the government education budget to PRONADE. Where possible, these distinctions were broken out and reported in the case studies.

Total Costs

The total costs of the project include the recurrent costs of the project, plus the development costs of bringing the programs into operation.

Obtaining development costs for the traditional public school system was a challenge, and one that the research team was not able to complete. As a result, the case studies report total costs and recurrent costs separately for the complementary models. Program cost comparisons are made against the recurrent budget only. Total costs for the complementary models include development and recurrent budgets .

Cost Effectiveness

Access

Access was defined as enrollment and the calculation used the number of students enrolled in the corresponding years and levels of the program schools and government schools in each case. The cost effectiveness of access of the public education system was calculated by dividing the total recurrent costs of the primary education system by the gross enrollment (GER) in primary education for a given year. In the case of Mali and Honduras, only one year of data was available for the public education system. In Ghana, data was available for 2001 and 2003, but only the 2003 data was used to maintain comparability with Mali and Honduras. The remaining cases drew on available data for comparable years.

The cost effectiveness of access for the complementary models was calculated by dividing the total recurrent costs of the program by the total number of students enrolled (in all grades) in a given school year. In the case of Honduras, separate calculations were made for the grade 1-6 program and 7-9 programs.

Completion

The cost-effectiveness of completion in the public education system was calculated by multiplying the total annual recurrent cost per student by the number of years to complete the primary education cycle. That number was then divided by the completion rate (i.e. total number of completers/total number of enrolled). In the complementary models, the same formulas were used. In the complementary models, recurrent costs were the yearly operational costs of running the program. In Ghana SfL, students complete the cycle in 9 months. In Honduras, Educatodos students complete the primary cycle in 2.5 years and the secondary cycle in 1.5 years. The shortened cycles contributes to the cost-effectiveness of the programs.

Learning

The quality of the education services provided by the government and complementary models may be very different. The costs of providing better quality education may be higher than that of providing poor education, but the cost difference may be mitigated in the long term by better outcomes achieved in the complementary models.

The first constraint that needed to be overcome was the lack of reliable outcome measures for both government and program schools. Analysis of costs associated with demonstrated levels of learning required the development and use of consistent tools for measuring student learning in each country. Absent that, we relied on learning data that was readily available and that allowed for comparisons.

In the case of Mali, student performance on the end of primary cycle examination was used. Only students who complete primary school are eligible to sit for the exam, so we divided the cost per completer by the CEP pass rate for government schools and community schools. CEP pass rates were available for community schools in Sikasso, but not for all the government schools in the region. We used government CEP pass rates for one sub-region in Sikasso, Kolondieba.

Comparing measures of learning in Ghana presented the most problems. Data on student outcomes for the School for Life program were based on a test of pupils towards the end of the nine month cycle administered by the Ghana Education Service in 2003. Seventeen School for Life schools/classes were randomly selected from eight districts, and 367 pupils were tested. The results used in the cost effectiveness calculation were the percent of students reading with comprehension, and writing and calculating with mastery (defined as equivalent to a third grade level).

No comparable data exist for third grade students in government schools in Ghana. The only available data on student outcomes are the national Criteria Referenced Test (CRT) which is given to sixth graders on a sample basis each year. We recognize three important caveats in using these data. One, the CRT is given in English and the School for Life test was given in mother tongue. Two, they measure decidedly different things. Three, only national CRT results are available, not data for the region where School for Life is operating. In addition, the CRT has been criticized for not accurately measuring what students are taught in primary schools in Ghana. However, these are the only available data on student outcomes in Ghanaian primary schools. With all these caveats in mind, the national CRT pass rate was used in the cost effectiveness calculation as a means to illustrate the importance of the need for more systematic and comparable student outcome data.

In the Honduras case, we used the results of a study conducted in October and November, 2001 by researchers from UMCE. This study measured student learning in the pilot centers, expansion centers, and in the traditional school system. A pre-test was applied to students in the grade 7 pilot centers at the beginning of the year, and post tests were applied to students in the pilot centers, expansion centers, and government schools. The cost effectiveness of learning calculation was performed only for the grade seven through nine aspect of the program and for lower secondary in the

government schools using the percentage of students who performed at the equivalent of mastery of the fourth grade level of Spanish. We did not calculate cost effectiveness for the primary

level programs because of the severe difference in age between primary school students and program participants and because pre- and post-test results were not available for that level.

In Egypt, pass rates on the official primary cycle exam for government and community school students were used. The official examination was also the basis for comparisons in Bangladesh.

In Zambia, results for government school and community school students on a same-based assessment of language competency served as the medium for measuring learning. The test was administered by the Ministry of Education.

Student learning data were not available for the Afghanistan government schools and PRONADE. The results for Honduras were not used due to the methodological issues discussed above.

Qualitative Component

The objective of the qualitative component of these case studies was to provide a description of each program and discuss the critical components that assisted in making the complementary models more cost-effective than the government schools. The qualitative component answered the questions, What features of the program assisted in making it more cost-effective in terms of access, completion and learning?

Document analysis was the primary method for obtaining information for the qualitative component. Documents that were reviewed included project evaluations, quarterly and annual reports, studies completed under each program, and any donor or NGO reports available for the time period requested. Interviews with program staff were held in the case of BRAC; and both Afghanistan cases.

Each case study completed an analysis of programmatic features leading to its success. The analysis for each case was then compared and lessons learned/similarities drawn together for the synthesis paper.

Validity and Reliability

Bias

Selection bias exists in all cases of complementary models because the purpose of the research was to select cases that demonstrated certain characteristics and were considered “successful” models for reaching the underserved. Students in all the programs self select, which means that they tend to have higher motivation. However, in many cases (i.e. Mali, Afghanistan and Zambia) the complementary models are the only choice for students if they want to attend school. In the case of Honduras, the grade 1-6 program is composed of primarily adults seeking to complete a primary education. Their characteristics and motivations are different from younger students and hence, are more likely to stay in school.

It is important to note that while one would expect these programs to do better as a result of self-selection and motivation, in fact, the programs target the poorest populations who often do not have access to other educational options. The population characteristics (i.e. poverty, illiteracy among parents, and opportunity costs) in the regions targeted by complementary models make it

less likely that these students would perform better in school. Results of the study demonstrate that the students perform at least as well as their government school counterparts.

Triangulation of results

Triangulation is based on the assumption that any bias inherent in particular data sources, investigator, and/or method is neutralized when used in conjunction with other methods, data sources and investigators. In the traditional sense, triangulation seeks the convergence of results because it allows overlapping data to bring different facets of the program to the surface. Where possible, researchers triangulated results in the following manner.

- The use of multiple cost data sources where possible, particularly for government data;
- Interviews or discussions with project staff when possible; and
- Cross case comparison.

Sensitivity Analysis

Sensitivity analysis was carried out on the cost-effectiveness analysis by using different cost estimates, particularly for recurrent costs. The sensitivity analysis looked at an increase or decrease in costs of 10% and 15%. The objective of the sensitivity analysis was to see if the cost-effectiveness of the complementary models vis a vis the government schools changed when recurrent costs were adjusted. If the cost-effectiveness was invariant, it indicated that the results were highly robust with respect to different assumptions in costs. Results of the sensitivity analysis indicated that our results were robust.

Limitations of the Study

The following limitations or challenges arose in this study.

- In all cases, multiple years of enrollment and completion figures were available for the complementary models, but not necessarily for the public education system. As a result, the total recurrent costs for the complementary models was often averaged over a five year time period and then compared to one year of public school data. This limitation led the research team to conduct the sensitivity analysis to improve the robustness of findings.
- In all cases, little or no sub-national data for the public education system was available; yet, research shows that costs will vary significantly by region, particularly remote regions. Obtaining sub national data is really required for accurate costs and outcomes, yet this data was not available in the degree of nuance needed for this analysis. We recognize that the cost estimates may currently underestimate true costs for government schools.
- A particular challenge exists of separating out different costs (i.e. capital investment, teacher preparation and professional development, materials) for national and complementary programs. National budget systems allocate costs differently, so it was a challenge to represent the same set of costs in each case. The NGO/Complementary education programs often include capital and other investment costs, as well as development costs. Moreover, the complementary models may include a range of development costs, including materials development, special teacher training, and curriculum design, which may be difficult to capture in the national system. These costs may have been expended in a different year, or under a donor project, or over time, and are not easily captured in annual budgets. Where possible, we attempted to break down budgets for both government schools and the complementary models to ensure that the costs are similar.
- In all cases, budget figures are not actual expenditures, but rather, projected costs or annual budgets for both the complementary models and the government schools. We recognize that actual expenditures may impact the cost analysis. However, actual expenditure data are notoriously difficult to obtain, and may have less to do with the true cost of what it takes to

execute an educational program and more to do with other factors that influence funding streams and project or program implementation. The sensitivity analysis attempted to adjust for use of budget figures.

- Acquiring comparable data across the case studies was a challenge. Differences exist in terms of budget numbers (actual versus projected costs); completion rates may have been calculated differently in all cases; and the age of students in these programs varied greatly.
- Development costs were not available for public education; therefore, all effectiveness analysis was conducted against total recurrent costs. The development costs of complementary models tends to be very high and it will be important to develop a sound methodology for acquiring and comparing development costs with the public education system to be able to present the true cost-effectiveness of the schooling options.
- Obtaining comparable learning outcomes data was a challenge. In most cases, the complementary models did not have learning outcome data available, or it was not comparable with the public education system because the tests are different.

The key to valid cost-effectiveness analysis is: 1) a concise and comparable definition of “effectiveness,” and 2) comparable measures of costs. This requires comparability between the national and complementary systems. Even standard measures of access and completion pose challenges, because some of the complementary models are implementing a different program (end in grade 3) or are drawing on a different population base (over-age - educandos). Budgets and expenditures are also not structured or reported in the same way in program and government schools, which also posed some methodological challenges. We made use of the available data and worked to overcome the comparability challenges were possible.

If you have questions,
please contact:

USAID

Patrick Collins
CTO EGAT/ED
USAID Washington
1300 Pennsylvania Ave., NW
Washington, DC 20532
Tel: 202-712-4151
Email: pcollins@usaid.gov

FHI 360

John Gillies
EQUIP2 Project Director
1825 Connecticut Ave., NW
Washington, DC 20009
Tel: 202-884-8256
Email: equip2@fhi360.org
Web: www.equip123.net

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