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# TEACHER DEVELOPMENT

## MAKING AN IMPACT



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# **Teacher Development**

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## Dedication

We dedicate this work to the thousands of classroom teachers, who despite low pay, overcrowded classrooms, often nonexistent initial teacher training, inadequate inservice development, lack of desks and chairs, few or nonexistent textbooks or other instructional materials, no library, poor sanitary facilities, and little or no transportation to their schools, somehow make it to school almost every day and attempt to teach their children. Our second dedication is to the millions of children, who go to school with the often vain hope that it will lead to a better life. One of the coauthors observed forty second graders in a West African nation “wait for teacher” for over four hours in searing heat, arriving on time, causing no discipline problems, but just patiently waiting for an adult to “teach” them. This level of dedication is seldom seen in the wealthier nations of the world, and we applaud it, but despair at the conditions that leave millions of children untaught each day of the year.

In the midst of these discouraging circumstances, however, we observed reflective teaching at its best: classrooms of a democratic variety to make John Dewey proud, communities and parents more empowered than those in many wealthy nations, creative problem-solving, and active learning utilizing the best of local culture and materials under the most difficult of circumstances.

While sound education exists in most industrialized nations with their tremendous resources, the fact that some of the most creative, reflective, and active-learning classrooms were observed in some of the most rural, poor, and multigrade settings in the world made it clear to us that when teachers are empowered, almost anything is possible. Many teachers, children, and communities of the world are ready, but regrettably, we cannot yet say the same for the governments and international agencies, who will be asked to fund or “bring to scale” these programs.

Outdated initial training programs; short, disconnected inservice training; inadequate textbooks; blackboard-based pedagogy; overly used norm-referenced summative evaluations; and a host of other challenges characterize too many millions of classrooms today. A few countries have permitted a few pilot programs to risk breaking this cycle. We have been privileged to catch a glimpse of some of these exceptional classrooms that function in a cost-effective, sustainable manner. Our only hope is that this manuscript can, in some small way, help to promote the exceptional programs and lessons learned from these experiences that these caring teachers, children, and communities have brought into existence.



## Preface

The ABEL2 Project (Advancing Basic Education and Literacy)—an initiative of the United States Agency for International Development under the auspices of the Academy for Educational Development—and the World Bank both sought an updating of promising practices in teacher education. ABEL2 also particularly requested that we address the question of whether teacher education affects children’s learning. While this work was never intended to be a formal impact study, we undertook the case studies to look very carefully at this question. Rather than duplicate efforts, we decided to combine the ABEL2 and World Bank studies, making use of the extensive archives of USAID, the World Bank, and other multilateral and bilateral educational assistance projects. We specifically sought out programs that both internal and external evaluators considered “successful,” and that evidenced both cost effectiveness and sustainability.

It became very clear that it is difficult to discuss teacher education and learning outcomes without referring to other aspects of teacher development, including incentives; management of teachers and the larger system; recruitment, deployment, and retention of teachers; evaluation; and the place of teachers in educational reform. We refer to aspects of these larger issues, but their greater exploration was beyond the scope of this study. We strongly encourage additional research and documentation of these processes, which will strengthen strategies to improve the quality of teachers’ and children’s learning.

After reading many reports, evaluations, and research studies, we visited some ongoing projects that appeared to have promising teacher education components and about which more extensive case studies could be written. The reader will find case studies on projects in Balochistan, Botswana, Guatemala, Bangladesh, and Namibia, as well as references to projects in various other countries. The case studies are in no way meant to cover all the aspects of these complex and often lengthy projects, but rather to highlight certain teacher education components that we and other external researchers have found to be particularly compelling. Nor do we mean to say that these projects are necessarily better than the many others. We do believe, however, that there are important aspects of each of them that can inform national policymakers and international donors and lenders in the coming years.

It is presumptuous to attempt to cover all aspects of teaching and teacher education worldwide in one review, and we continuously found ourselves having to limit our work, due to time, travel constraints, and the multiple scenarios of teacher development at different stages of the learning process in countries at different stages of economic development. We do, however, attempt to provide evidence



that teacher education programs do enhance student learning; summarize research on effective teaching and schools; summarize guidelines to assist with the development of more effective teacher education programs; and describe ongoing teacher development programs from different parts of the world.

We end our report with recommendations. They are based not only on our own research, experience, and site visits, but on the work of many dedicated teachers, teacher educators, program administrators, ministry of education officials, international consultants, researchers, and evaluators. We trust that we have done them justice in our attempts to synthesize their work.

## Acknowledgments

*Teacher Development: Making an Impact* has been produced as a joint venture between the World Bank and Project ABEL 2 (Advancing Basic Education and Literacy), an initiative of the United States Agency for International Development under the auspices of the Academy for Educational Development. The content and design owes a great deal to the encouragement of colleagues at the Academy for Educational Development, USAID, the World Bank, and other education agencies. We would like to gratefully acknowledge the help of each of these people and those in the field who willingly gave their time, information, and counsel so we could better understand various dimensions of teacher development programs.

Individuals who provided valuable written comments and insights on the document include David Chapman (University of Minnesota), Francy Hays (AED), Jim Hoxeng (USAID), Kathryn Johnson (World Bank), Gary Knamiller (University of Leeds, UK), Eileen Nkwanga (World Bank), Maria Teresa Tatto (Michigan State University), Bernadette Robinson (formerly from the Open University, UK), and Eluned Roberts-Schweitzer (World Bank). Sena Hubler (World Bank), Rose Thomas, Peggy Kong, and Leslie Enright (AED) assisted with copyediting and bibliographic details. The report was prepared for publication and edited by John Engels (AED).

Finally, we would like to offer special thanks to the many governmental officials, teachers, teacher educators, and international consultants who facilitated our site visits to their projects and made us feel so at home. They not only provided us much documentation on their projects, but also openly shared their successes and failures with us, and extended such overwhelming hospitality. Our special thanks to all of you.

The contributions of all the above colleagues are greatly appreciated, for they have helped us refine our understanding about how to improve the quality of teachers and teaching.



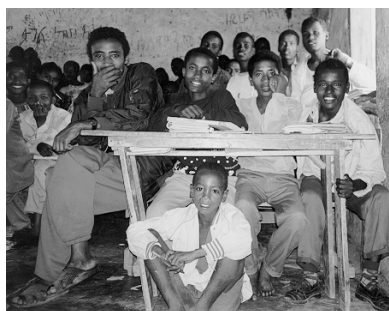
# Executive Summary

This study began as an update of promising practices in teacher education programs that have been particularly successful in enhancing student learning in their own context. Along the way of undertaking case studies in Bangladesh, Botswana, Guatemala, Namibia, and Pakistan, and collecting other research on promising practices, we expanded the study to include several related topics, including the impact of teacher education on children's learning; effective teaching; trends in teacher development from around the world; recruitment and retention of teachers; incentives; and evaluation, supervision, and management, including cost-related issues.

The intervention and program ideas suggested in this report are intended to provide the project manager or planning official with a range of alternatives and guiding questions to discuss with various in-country stakeholders. Questions of what is feasible in the short and mid-term, and what plans should be worked towards over the next ten to fifteen years for longer-term plans need to be part of this discussion. Some of the suggested ideas are drawn from the case studies. We do not suggest that these programs are ideal in every way, but they do provide practical guidelines to shape good practice elsewhere. Other suggested ideas come from additional research literature. The following are select key findings and recommendations.

## Teacher Education Can Make a Difference to Student Achievement

Teacher education programs can make a difference to student achievement depending on the type of education program and support that is put in place. Specific factors such as the years of teacher training (initial and inservice), the teacher's verbal fluency, subject matter knowledge, having books and materials and knowing how to use them, teacher expectation of pupil performance, time spent on classroom preparation, and frequent monitoring of student progress are all key factors identified in some key research studies that have a positive bearing on the quality of teachers' performance and, consequently, student achievement. Many of these factors were confirmed by the case studies.



Julie Owen-Rea

## Teachers Need to Be Actively Involved in the Change Process

When teachers are actively involved and empowered in the reform of their own schools, curriculum, pedagogy, and classrooms, even those with minimal levels of formal education and training are capable of dramatically changing their teaching behavior, the classroom environment, and improving the achievement of their students.

Conversely, when teachers are ignored, or when reforms come from above or are not connected to the daily realities of the classroom and local environment, even the most expensive and well designed interventions are almost guaranteed to fail. Our review of the literature and case studies confirm that when teachers are involved in making decisions about changes that affect them, enjoy being around children, have the skills to impart appropriate knowledge and manage their classrooms, and understand their role in the broader community, they usually are highly motivated and their students' achievement tends to rise.

### **Teacher Development Is About Ongoing Professional Growth and Support**

From the time teachers begin any initial preparation or teaching, provision needs to be made for ongoing development of their subject matter knowledge; concrete skills to teach, observe, assess, and reflect; incentives; and career growth. There also needs to be linkages with other teachers and supervisors to help them solve problems and support each other through discussion, modeling and coaching, and involvement with other aspects of school and educational change. Isolation and lack of communication between all players needs to be reduced. Ministries of education and regional office staff have a responsibility to provide sufficient teaching and learning materials to support the curriculum, adequate facilities, and ongoing support for the issues that teachers face.

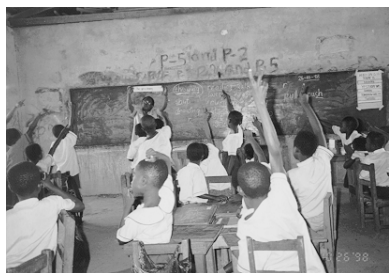
### **Teacher Development Is a Process Along a Continuum of Learning**

Teacher development is a process, not an event. It involves change over time and is achieved in stages. The stages are related to teachers' experience gained in instructional and management practice over their career. The stages are also related to the degree of services and support a country's level of economic and political development allows it to provide.

Strategies must begin at the teacher level and be aimed at helping each teacher facilitate change in the classroom. Just as the success of each school is the key to overall quality improvement in the education system, the success of teacher development within the school must be aimed at the success of each teacher to help children learn.

### **Alternative Teacher Education Programs Should Be Considered**

There are a variety of ways to prepare and support teachers in a variety of environments. Initial preparation of teachers varies greatly across



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countries. Where they exist, programs have worked well when they have ranged from fifteen days as in the BRAC schools in Bangladesh, twenty-five days in the rural community schools in Egypt, two-year programs in Botswana, three years in Namibia, to the five-year programs as found in some U.S. institutions. Success depends on how the courses are structured and what support accompanies them. Practical training, based on the realities of the classroom and ongoing on-the-job support, is the critical factor in any successful teacher education program. Teachers who have shorter initial programs tend to require more concentrated follow-up while on the job. Where there is an issue with getting females trained in restricted social regions, mobile teacher training has proved helpful. Distance education, when carefully designed for large numbers of students, appears to be significantly less expensive than traditional residential programs in producing “certified” teachers. Alternative programs such as shorter school-based programs with ongoing mentoring and support should be considered, particularly in education systems with shortages of trained teachers.

### **It Is Important to Create Conditions that Lead to Sustainability**

Sustainability of a teacher development program is strengthened where there is long-term involvement by stakeholders, sufficient institutional capacity, appropriate incentives and rewards, political stability and commitment, and effective phasing out of outside donor resources.

### **Recommendations**

Fundamental changes in the following three areas are required if the quality of teachers and teaching is to be significantly improved. Some key recommendations identified from the study are:

#### ***1. System Support***

- Establish commitment in the form of vision, policies, plans, and actions for long-term professional development of teachers. Some crisis management may be needed in the short term.
- Delegate to the school the authority, flexibility, and responsibility to develop relevant programs and school schedules to establish this long-term professional development commitment.
- Define the rights and responsibilities of the various administrative groups within the education system to clarify issues of needed legislation, infrastructure, functions, and communication.
- Require school supervisors to inform teachers and head teachers of promising teaching practices, and assist staff in trying these out.
- Assist schools to provide necessary teaching resources to achieve instructional goals.

- Allow freedom of professional association and some form of collective bargaining consistent with labor legislation; involve representatives of these associations in reform discussions, and establish arbitration procedures.
- Develop human resource development strategies that are long-term and ongoing, depend heavily on school-based inservice programs, and link training and upgrading to a career-path structure.
- Hire committed teachers and provide adequate training and support to enable them to do their job. It is preferable to hire teachers with at least nine years of general education (the number is not key, just the need for more general education) and with some teaching training.
- Provide a range of incentives for different stages of teachers' careers to attract suitable candidates to teaching, establish job satisfaction, and improve instructional practice. Incentives can be direct monetary benefits (e.g., teacher salary, allowances, and fringe benefits), indirect monetary benefits (e.g., professional training, teacher guides, textbooks, instructional supervision, subsidized housing, food, and transportation), or nonmonetary benefits (e.g., professional status in the community, location of teaching position, and recognition of performance). They must match the needs of teachers if they are to be true incentives. Thus, different incentives are important at different stages of a teacher's career.

## *2. Ongoing Professional Development—The Early Years*

- Provide focused instruction for new teachers. Beginning teachers need initial preparation in their subject matter, fluency in the language of instruction, knowledge of how to use instructional materials, and some basic classroom management and reflection skills. Most of these skills are best learned through on-the-job practice with coaching, which can be done through a traditional preservice program with substantial supervised practice teaching, or with close supervision and ongoing inservice training while on the job.
- Consider a range of alternative teacher preparation programs suitable to or adapted to local needs and constraints. Programs such as shorter school-based initiatives with ongoing mentoring and support should be considered, particularly in education systems with a great shortage of trained teachers.
- Establish an appropriate system of standards accreditation to match the preparation program so that *all* teachers can work towards both high standards and the same professional status.
- Require teacher education faculty to be active in classroom and school research, model good practices in their own teaching,



Linda Brown





impart clear subject pedagogies, have a clear concept of how adults and children learn, and take time to reflect with students about teaching practice.

- Establish induction programs. These are essential to guide and support beginning teachers in their first few years of teaching, help develop sound teaching practices, and retain teachers.

### *3. Ongoing Professional Development—The Years After Initial Preparation*

- Broaden the concept of inservice programs and support to mean a *growth continuum of ongoing, participatory learning that is closely tied to the realities of classroom needs.*
- Focus inservice programs on specific training for subject knowledge, pedagogy, and classroom management that is appropriate to the teacher's current needs. Ongoing guidance and support, the sharing of ideas and concerns among teachers, the support of the head teacher, and obtaining sufficient release time to participate in training are some of the key elements these programs should focus on.
- Extend the evaluation of teacher education programs beyond informing facilitators and administrators of the modes of presentation, relevance, adequacy of facilities and instructors, etc. The evaluation must also investigate whether attitudes and practices of participants have actually changed for the better and whether these changes are manifest in classroom and school practices.
- Aim classroom supervision by inspectorate supervisors, head teachers, and peers at improving teacher performance in the classroom. An effective teacher is able to discern from among alternatives what enhances student learning and what does not, and works to that end of raising student achievement. Teacher performance evaluations should help teachers make a better learning environment for students.



# 1. Teacher Development: A Process Along a Continuum of Learning

## Introduction to the Study

*When teachers are involved in appropriate decision-making processes, are able to reflect on and change their circumstances, enjoy being around children, have the skills needed to impart appropriate knowledge and manage their classrooms, and understand their role in the broader community, they are usually highly motivated and student achievement tends to rise. These elements are usually developed over time and with practice.*

Many years ago, one of the coauthors of this manuscript asked a large group of primary and secondary school principals what was the most important factor contributing to an effective school. The principals cited student-centered learning, a democratic learning environment, outstanding leadership, high standards and expectations and a range of other factors. The principal of perhaps the most student-centered, democratic school in the country shocked everyone when he said that he built his school around his teachers. When teachers were motivated, committed, and happy to be there, the rest of the work would fall into place. Our review of the literature and our site visits confirm that when teachers are involved in decision-making that affects them, are able to reflect on and change their circumstances, enjoy being around the children, have the skills needed to impart the knowledge for which they are responsible, and understand their role in the broader community, they are usually highly motivated and student achievement tends to rise. While this is true of far too few schools and classrooms around the world, we observed and read about some exceptional places where teachers love to teach and were developing confidence and new skills, and where children really learn. This is happening in some of the most unlikely places: poor, rural, bilingual, and multigrade settings, with underpaid teachers possessing limited instructional materials and training.

We want to make the case that even small changes with teachers and their learning environments—changes of the right type, that is—can make a difference to children’s learning and retention in the educational system. Helping teachers to be knowledgeable and responsible enough to make needed adjustments to the learning environment is one of these changes of the “right type.”



In considering raising the quality of teaching, one must begin at the teacher level. Teacher development must be seen as a continuum of learning, with teachers located at various places along the continuum. (The stage of a country’s development will also affect the range of learning experiences on this continuum.) Teaching experience is gained over time. Long-term goals for excellence in teaching should be

ambitious, but short and mid-term goals must reflect the reality of the everyday working situation for teachers. Even if only very modest changes are produced, such as getting a teacher to come to class each day and undertake basic skills training with rote methods, this represents progress if before the teacher did not even make it to class. While there are certainly better methods than rote to help children learn, the point is that planners and administrators may need to have modest goals in the initial stages of enacting a teacher development program. However, they should never lose sight of moving forward to the goal of creating a teacher who will use a variety of interesting and effective learning methods. The case studies highlight the importance of schools and regions having an ongoing long-term professional development program that helps create this kind of teacher.

In this study we provide guidelines for improving the professional development of teachers. These guidelines provide a range of alternatives that have been tried in systems that have very constrained resources as well as in those that are well established. Several requests from colleagues were made to develop a conceptual framework that sets out different teacher development strategies for the varying stages of a country's development. This was not possible for the study, but we hope to articulate this better in a forthcoming work.

Some of the suggestions are drawn from the case studies—key factors that have been particularly successful in enhancing student learning in teacher education programs. We do not suggest that these programs are ideal in every way, but they do provide practical guidelines to shape good practice elsewhere. Other suggested ideas come from additional research literature. The case studies are presented, and are then followed by a section setting out the key lessons learned.

The first section of case studies (Chapter Two) provides examples of different types of initial teacher preparation programs. Two traditional teachers' college programs in Botswana and Namibia are presented as well as a nontraditional, non-governmental organization (NGO) "crash course" preparation program in Bangladesh. The second section of case studies (Chapter Four) provides examples of ongoing professional development programs. These include the Nueva Escuela Unitaria program in Guatemala, and the Mobile Teacher Training and Mentoring program in Balochistan, Pakistan. Snapshots of other activities are also presented to illustrate the strengths of various school-based, resource center, cluster, and resource teacher programs.

The following assumptions establish our perspective on teacher development:

- There is no single best way to prepare and support teachers, so alternatives that have been effective in different contexts will be presented.
- From alternatives, planners must consult with teachers and other stakeholders to decide what are the most realistic strategies to choose over the short, mid and long-term. Ten to fifteen years will possibly be needed to achieve long-term goals.
- Teacher development involves change over time and is achieved in stages.
- Teacher development is a process and not an event.
- Strategies must begin at the teacher level. Consulting with teachers about what their needs are as well as in reform decisions for which they will be responsible to implement is a critical factor to bring about needed change.
- Teacher development strategies must be aimed at facilitating change in the classroom. Just as the success of each school is the key to overall quality improvement in the education system, the success of teacher development is the success of each teacher.

Among the many fundamental questions we attempt to answer in this study are the following:

- Does teacher education make a difference to student achievement?
- What trends are occurring in teacher education?
- What are the financial dimensions of teacher education programs?
- What constitutes effective teaching?
- What incentives promote job satisfaction, retention in the profession, and improved instruction?
- Which initial and ongoing teacher education practices appear to have promise for improving the quality of teaching, and hence student achievement?
- Are there programs throughout the world that are cost-effective, sustainable, and replicable?
- Can poorly educated, underpaid, overworked teachers become reflective, empowered professionals?

The first four questions are addressed in the following sections of this chapter. These topics were identified by project managers at the World Bank and USAID as areas of particular interest. Responses to these questions are based on insights from the case studies as well as the larger research literature. The other questions are addressed elsewhere in this paper.

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## Select Topics in Teacher Education

**Does Teacher Education Make a Difference to Student Achievement?**  
Yes, teacher education *can* make a difference to student achievement,

depending on the type of program and support that is put in place. Almost twenty years ago, Husen, Saha, and Noonan (1978) published *Teacher Training and Student Achievement in Less Developed Countries* for the World Bank. Their paper responded to the concern in the 1970s that increased investment in teacher training did not necessarily result in better education. That concern still exists in both the educational research and in the international assistance communities.

From the case studies we looked at, we concluded that the relationship between teacher education and high student achievement is complex and mixed with many variables that were beyond the scope of this study. However, how teachers were prepared and supported within the school system were critical elements of higher student achievement and retention. For example, outside formal evaluations of the Basic Education Strengthening (BEST) project in Guatemala showed that teachers had been effective in advancing children through the primary schools, schools retained significantly more students than traditional rural schools, and students achieved at a higher level in mathematics and reading. It was also found that active pedagogy practiced by the teachers contributed to pupils' emotional growth and participatory behavior. Parental satisfaction was also higher—parents cited their children's ability to read and behave better at home. Teachers had developed skills to diagnose the difficulties facing students, reflect on possible solutions, and make appropriate changes to student learning environments. In the BRAC Non-Formal Primary Education program, teaching staff are provided with a high level of practical on-the-job support. A formal evaluation of the program showed that more than 90 percent of the children who start the school program finish. Also, a large proportion of the graduates are admitted into Class IV or higher of the government school system.

Other researchers also support the finding that “the academic and professional training of teachers has a direct and positive bearing on the quality of their performance and consequently on the achievement of students” (Avalos and Haddad 1981; Husen, Saha, and Noonan 1978; Schiefelbein and Simmons 1981, cited in Lockheed and Verspoor 1991: 62). Specific factors such as the years of teacher training (initial and inservice), the teacher's verbal fluency, subject matter knowledge, having books and materials and knowing how to use them, teacher expectations of pupil performance, time spent on classroom preparation, and frequent monitoring of student progress are known to affect student achievement (Farrell and Oliveira 1993; Fuller and Clarke 1994). The case studies demonstrated that these factors are also very important. Most of these skills can be learned through teacher education programs and on-the-job supervision.

### Trends in Teacher Education

Darling-Hammond and Cobb (1995: 15-16) summarized several trends revealed in the large teacher development study on some of the Asia-Pacific Economic Cooperation (APEC) countries.<sup>1</sup> While these trends were reported from the APEC countries, they reflect issues that are being discussed in many other countries around the world. (It is important to note that several of the problems such as teacher shortages, low pay, limited career growth, and inadequate incentives are not confined to low-income countries.) These trends include:

- Across APEC countries, women make up the bulk of the teaching force at the pre-primary and primary school levels. While women also predominate at the secondary level in many member countries, in Japan and the Republic of Korea men make up the bulk of the teaching force in secondary schools. In most APEC countries men continue to outnumber women in senior administrative positions such as head teachers.
- Teacher wages often compare unfavorably with salaries in other professions.
- Several countries find it difficult to meet demand for teachers in remote areas. On the other hand, in the United States, the highest demand for teachers is in inner cities and in growing areas of the country where immigration is high and teacher salaries tend to be lower.
- Countries facing teacher shortages use a variety of ad hoc solutions, including hiring teachers without full preparation by establishing emergency and alternative routes to licensing.
- Some countries report that teaching is still a field with little opportunity for advancement and promotion, i.e., to advance, one must leave teaching.
- Efforts are underway to strengthen preparation programs and induction support for teachers.
- There are few external incentives to participate in professional development activities.
- Some APEC countries are trying to establish national frameworks for professional development to expand beyond its use for licensure or registration, and credentialing for promotion, and to encourage professional development as an integral and ongoing component of the profession. What the countries are aiming for is a continuum of professional development and growth for teachers that spans their careers from preparation to retirement.
- Teaching in most APEC countries is a highly regarded profession. However, efforts are underway in several countries to provide

<sup>1</sup>The APEC countries that contributed reports to this study are Australia, Brunei Darussalam, Canada, People's Republic of China, Hong Kong, Japan, Republic of Korea, Malaysia, New Zealand, Singapore, Chinese Taipei, and the United States.

teachers greater professional autonomy and a greater voice in creating standards for preparation, licensure, and practice.

- There are efforts in the United States, Australia, and some provinces in Canada foster greater collaboration among institutions of higher education, school districts, and teacher organizations in efforts to improve teacher preparation and support. Professional development school relationships and mentoring programs are examples of increased collaboration between schools and colleges of education.

### **The Financial Dimensions of Teacher Education**

Most developing nations are forced to employ some underqualified—and often unqualified—teachers in order to achieve universal primary education. This has generally been a major factor in the decline of the overall quality of education and the increase in recurrent budget expenditure. McGinn (1991) raised the following fundamental questions: Are there effective ways to train teachers that cost less than conventional methods? Can improvements in quality be made despite financial restrictions? In this section, we explore these and other questions related to the financial dimensions of teacher education programs.

***Teacher Salaries:*** While salaries are not directly related to teacher education, they do have a powerful effect on the type and quality of student attracted to the teaching profession. In countries where teacher salaries are perceived as being a “step up” from other nonagricultural salaries, parents will often encourage their children to attend a teacher training program. In addition, when salaries are competitive, graduates of teacher training programs are more likely to enter the teaching profession rather than the private sector.

Numerous factors help determine what salary will attract and retain quality teachers. Salaries need to support at least basic living conditions, to attract and maintain teachers with the desired levels of qualifications, and to minimize “moonlighting” and lack of professional commitment. Coombe (1997) notes the high departure rates, absenteeism, neglect of duty, and lack of discipline among teachers in Africa, all of which contribute to lack of discipline, absenteeism, and repetition among pupils.

Núñez (1989) reports that primary school teachers in Chile in the early 1980s received the lowest salary on the national scale, a problem that worsened in subsequent years as decentralized responsibilities for hiring and firing teachers meant increased work instability. High rates of inflation in countries such as Venezuela can erode the purchasing power of comparatively high salaries for public servants such as



teachers. Countries that have had rapid economic growth in the past decade, such as Chile and Thailand, have found it necessary to raise teachers' salaries more rapidly to keep them from defecting to the private sector. Many African economies have remained stagnant and even declined over the past twenty years, which has made it almost impossible to raise teachers' salaries. Moreover, with the continent's massive unemployment and underemployment, there has not been the economic pressure to raise salaries. During massive deflations such as that experienced by Mexico in the mid-1990s, teachers and other civil servants bear a large portion of the burden and, when the economy recovers, make strong demands on the political system for greater salary equity.

Up to 90 percent of all recurrent educational expenditures are allocated to teachers' salaries in many formal government systems. However, some successful nonformal basic education school programs have managed to greatly reduce the proportion of the budget spent on teachers' salaries. BRAC's Nonformal Primary Education program in Bangladesh, for example, supports about 35,000 schools, with 27 percent of its program budget going to management and supervision and only 29 percent to teachers' salaries. The remainder of the budget supports students' books and supplies, rental of classroom space, training, teaching aids and equipment, and staff offices and housing.

While teachers—particularly those at the primary level—in most developing nations are notoriously underpaid, no clear relationship between teacher salary and student achievement has been discovered (Morales and Pinell 1977; Harbison and Hanushek 1992). However, salaries do correlate highly with qualifications and experience in almost all school systems. Thias and Carnoy (1972) and Carnoy and de Moura Castro (1996) found significant relationships between the average teacher salary and examination outcomes at both the primary and secondary levels in Kenya, but salaries accounted for only a small fraction of the total variance in performance. Thias and Carnoy conclude that an increase in salaries would have minimal effect on achievement. However, we continue to believe that when teachers receive monthly salaries less than half the cost of a basic survival food basket, it is a logical conclusion that teacher motivation, attendance, creativity, and other factors related to student achievement are bound to suffer.

To address salary-related issues, Reimers and Reimers (1996), Farrell and Oliveira (1993) and Coombe (1997) offer the following suggestions:

- Offer all teachers in comparable environments the same conditions of service and a common career structure.

- Make teacher salary schedules independent of the schedules of other civil servants.
- Have differentiated criteria to make selective salary increases for teachers rather than making them across the board.
- Eliminate rules that guarantee graduates jobs.
- Place more emphasis on ongoing professional development programs rather than costly and lengthy preservice programs.
- Investigate the provision of adequate teacher guides and basic instructional materials to make teaching more effective.
- Review pay and reward structure and levels in order to attract teachers to shortage subjects and locations. (Opponents of this controversial topic say that differential pay would be divisive, and shortage subjects change over time; differentiated salaries could prove to be insensitive to such changes.)
- Reexamine teacher workloads, including the time spent on administrative activities. Recent research shows that on average only about half of teachers' time is devoted to direct teaching and lesson preparation. Administrative and other duties take up the largest part of teachers' time, and many of those activities might potentially be delegated to support staff.
- Provide special incentives and compensation for those teaching in poor working conditions or in remote locations.
- Provide provisional differential pay rules and alternative incentive systems that reward groups of teachers or school boards rather than individuals. These have been found to encourage cooperative work among teachers and are acceptable to teachers' unions.
- Decentralize fiscal responsibility to districts and lower levels for such items as teacher training, instructional materials, school facilities, etc.
- Ensure that both men and women are equitably compensated.
- Eliminate or drastically reduce delays in paying teachers' salaries.
- Specify teachers' conditions of service that are specific to the teaching profession. Draft these in consultation with teachers' representatives. Conditions of service to be addressed include leave arrangements, the length and configuration of the school year and the teaching week, the code of teacher conduct, arrangements for transfers from one school to another, maternity leave, cover for teachers on leave, appraisal and staff development, promotion arrangements, and housing standards.

***Teacher Education Programs:*** There appears to be little consensus internationally on the “needed” level of resources to educate teachers (Monk and Brent 1996). On intra-institutional studies, teacher training ranked consistently at or near the bottom in reference to other academic disciplines, often with expenditures far below those in the sciences,



engineering, or business. The studies all conclude that teacher education is underfunded in comparison to not only other disciplines, but even within departments of education (Monk and Brent 1996). Peseau, Backman, and Fry (1987) point out that traditional funding formulas do not accurately reflect the complexity of teacher education programs. Clinical programs in teacher education encompass several functions not generally characteristic of traditional didactic courses. Among these functions are such things as student placement, travel, communications, clinical supervision, support services and materials, simulation and microteaching expenditures, and payments to cooperating teachers. Monk and Brent (1996) also found that in the United States, it is likely that classes in teacher education programs are instructed by the least senior faculty members and contain twice as many students as other department courses.

There has been very little research conducted on either the direct or indirect costs of teacher education or the cost-benefit ratios of particular forms of preservice and inservice education as they affect various indicators of school improvement or student achievement. The case studies from Guatemala and Bangladesh however, indicate that comparatively inexpensive teacher training models can lead to significant change in teacher classroom pedagogy and in higher retention rates, both important indicators of school improvement. Distance education, when carefully designed for large numbers of students, appears to be significantly less expensive than traditional residential programs in producing “qualified” or “certificated” personnel. The potential advantage of reaching large numbers of students in a well supported distance education program at a lower overall cost than conventional residential training is discussed in studies such as the work in Sri Lanka and Indonesia by Nielsen and Tatto (1991), and confirmed in numerous other studies reviewed in Perraton (1993).

As recorded by Darling-Hammond and Cobb (1995), some APEC countries report a trend of increasing expenditures for professional development activities. New Zealand, for example, reported a 30 percent increase in funding for professional development between 1991 and 1993. In New Zealand in 1992, primary and secondary schools spent approximately \$14 million on professional development. The bulk (53 percent per teacher) was spent on teacher release time. In 1993, Australia announced the federally funded National Professional Development Program, which provided \$60 million for staff development activities over a three-year period (in addition to the funds provided by employers). In general, U.S. school districts spend less than 0.5 percent of their budgets on professional development.

In the European Member States<sup>2</sup>, where the budgets for inservice training are also generally less than 1 percent of the total education budget, the trend towards decentralization of inservice training and direct financing of local authorities and schools makes it very difficult to compare data. In addition to funds coming from different sources, responsibility for inservice training may be shared by several branches of a ministry or of a local government. The content of the budget may also be very different, depending on the organizational structure, e.g., it may include trainers' salaries, traveling costs, or course fees for teachers who leave their own school for training.

***Cost Effectiveness:*** While we report on other projects more fully later in this paper, here we discuss the cost effectiveness of the BEST project in Guatemala and the BRAC Nonformal Primary Education Program in Bangladesh.

*Cost Effectiveness in Rural, Multigrade, Bilingual Setting in Guatemala—The BEST Program:* The Basic Education Strengthening Project (BEST) in Guatemala has developed two low cost, innovative educational reforms, the Nueva Escuela Unitaria (NEU) and National Bilingual Intercultural Education (DIGEBI). The costs of these two programs for rural, predominantly Mayan-speaking students were compared by Chesterfield and Rubio (1997) to regular Ministry of Education schools serving similar populations in the same regions. The indicators of cost-effectiveness were the percentage of children in the base year (1991) who progressed normally through primary education and the average cost per student to produce a sixth-grade graduate in 1996. The cumulative costs per student for all years were divided by the number of students in sixth grade in 1996. Both NEU and DIGEBI schools had higher percentages of children making normal progress through the primary grades than comparison groups. In both cases, the innovative programs had higher percentages of first graders who were enrolled in second grade than the comparison schools and in each case this translated into higher percentages of children in sixth grade. The differences favoring NEU children in sixth grade were 13.4 percent for boys and 7.9 percent for girls. For DIGEBI these differences were 4.2 percent for boys and 2.9 percent for girls. The greater efficiency of the two innovative programs resulted in a lower per-student cost for each child who made normal progress to sixth grade, despite the additional operating costs for NEU and DIGEBI per student per year. Even when research and development costs, which will in reality be spread over a much longer time frame than the six years included in this study, were

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<sup>2</sup>European Union Countries: Belgium, French Community, Flemish Community, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, The Netherlands, Austria, Portugal, Finland, Sweden, United Kingdom, England and Wales, Northern Ireland, Scotland; EFT/EEA: Iceland, Norway.

included, the innovative programs were cost effective for male students.

While this study looked at the total effect of two interventions, not just teacher training, we believe that the inservice training component of this program is *an absolutely critical* aspect of its success. Without the voluntary involvement of the teachers in all aspects of its development from conception to implementation, we believe the program could not have succeeded in achieving this level of cost effectiveness.

*Cost Efficiency and Cost Effectiveness in Bangladesh: The BRAC Nonformal Primary Education Program:* As reported by Ahmed et al. (1993: 6-7, executive summary), cost efficiency and cost effectiveness were assessed by comparing costs and student performance in BRAC Nonformal Primary Education (NFPE) schools and formal government primary schools. Independent cost studies confirmed BRAC costs for schooling are much lower, even without considering the extra private costs of formal schools that make them more expensive and lead to high dropout and low enrollment rates. In addition, unlike the formal school system, which allocates the vast majority of its resources to teacher salaries and school facilities, BRAC allocates almost 27 percent of the NFPE budget to management and supervision of teachers. Only 29 percent is allocated to teacher salaries. Rugh and Bossert (1998) add that the BRAC teacher earns about US\$12 per month, which is twice that of an agricultural laborer. In their study they concluded that BRAC demonstrated that paraprofessional teachers trained in the short fifteen-day initial period and given strong on-the-job support were capable of becoming effective primary-level teachers.

As far as other aspects of the program are concerned, because poverty is identified by Bangladeshi parents as a major reason for their children dropping out or not enrolling in the formal schools, the NFPE program is designed so that parents incur practically no direct costs for sending their children to BRAC schools. Books and supplies are provided free, uniforms are not required, school hours are varied to home and agricultural cycle needs, and schools are located in proximity to the students' homes. BRAC school attendance results in less income loss to the families than does formal school attendance.

BRAC students achieve as much as or more than formal school students. During a three-year period, BRAC students completed the NFPE program and entered the formal school Class IV at a higher rate than did the students who began in the formal system. BRAC students are scoring the same or higher than formal school students on basic education assessment and basic literacy tests.

Even with annual costs per enrolled student in BRAC and the formal schools system approximately equal, the relatively higher attendance rates, lower repetition rates, higher Class III completion rates, and higher Class IV continuation rates for BRAC students mean that BRAC schools are substantially more cost efficient per graduate than the government schools.

**Effective Teaching: What Is Ideal?**

Effective teachers have different styles and personalities, and are considered effective for varying reasons. In many communities, teachers are considered effective if many of their students attain some of the following: sound academic achievement; an enjoyment of learning; and skills to continue to learn, solve problems, and functionally operate in and contribute to their societies. Effective teachers give students appropriate attention when needs arise.

Whatever other worthwhile results are achieved because of teachers' work, teacher effectiveness is usually expressed in terms of pupils' academic achievement, something that is more easily measured than some other valued outcomes of good education. The measurable gains in student progress are some of the strongest indicators of improvement in educational quality. Improving the learning environment will help raise student achievement.

Teachers who are able to develop sound academic achievement with their pupils tend to share many of the following characteristics. Effective teachers at a mature stage of development tend to:

- know their subject matter;
- use pedagogy appropriate for the content;
- use an appropriate language of instruction, and have mastery of that language;
- create and sustain an effective learning environment;
- find out about and respond to the needs and interests of their students and communities;
- reflect on their teaching and children's responses and make changes to the learning environment as necessary;
- have a strong sense of ethics;
- are committed to teaching; and
- care about their students.

The brief review that follows summarizes the most common elements of effective teaching. Some of this work has been excerpted from Heneveld and Craig (1996), which deals specifically with applying factors of school effectiveness and improvement to educational project design. Listed below are features related to the classrooms of effective

teachers that need to be covered by teacher education programs and put in place in the larger education system.

***A Capable Teaching Force:*** Among the conditions that define the capability of a school's teaching force are i) the teachers' mastery of the material they are supposed to teach (Huberman and Miles 1984; Lockheed and Verspoor 1991); ii) the amount of teaching experience they have (Haddad et al. 1990); iii) the length of time they have been in the school (Purkey and Smith 1983); and iv) the extent to which the teaching force is full time in the school (Fuller 1986). It is expected that teachers in developing countries will also be more effective if they know their subject matter, have experience, and are stable in their full-time work assignment.

***Adequate Support:*** The research literature strongly indicates that ongoing, relevant staff development activities are necessary if a teaching force is to be effective (Blum 1990; Dalin et al. 1992; Farrell 1989; Levine 1991; Lockheed and Verspoor 1991). This research suggests that adequate time and resources need to be set aside for teacher development, that staff members need to have a say in the content of activities, that skills learned should be practiced over time with follow-up sessions implemented where necessary, and that staff members should be encouraged to share ideas and work together. Changed attitudes and behaviors and new skills and strategies are the result of most inservice programs (Purkey and Smith 1983; Heneveld and Hasan 1989). In their study and review of educational systems in selected developing countries, Dalin et al. (1992), Farrell (1989), and Fuller (1989) found that local inservice training programs, particularly those that focused on pedagogical skills, were key determinants of teacher mastery and student achievement.

***Positive Teacher Attitudes:*** Effective teachers tend to have confidence in their ability to teach, care about teaching and their students, and cooperate with each other (Chubb and Moe 1990; Duttweiler and Mutchler 1990; Huberman and Miles 1984; Joyce, Hersh, and McKibbin 1983; Levine 1990; Purkey and Smith 1983; Shann 1990). These characteristics are reflected in the teachers' comfort in using learning materials and in trying new ideas, low teacher absenteeism and tardiness, and a high level of group involvement in planning teaching and in resolving whole-school issues. However, classrooms where teachers lack general subject mastery and confidence in their ability to teach, the development of positive teacher attitudes is often hindered.

***Time and Efficiency:*** Research has indicated the importance of the length of school study time on student learning and achievement.

Children who spend more time studying in school tend to learn more (Farrell 1989). A distinction needs to be made between the established number of days and hours per day, the actual time the school is in operation, and how the available hours are used. In some settings, the policy on the school calendar and daily hours may need to be revised to have schools in session more. In others, the policy may be adequate, but school may, nevertheless, remain closed often, or the school day may be shortened, e.g., a leaky roof, teacher absenteeism, or overcrowded double sessions. Research from a variety of countries has shown that both the amount of time available for instruction as well as how this time is used by students and teachers is consistently related to how much children learn at school (Lockheed and Verspoor 1991).

Effective teachers waste less class time in starting and ending instructional activities; they select materials that are appropriate to student abilities; they emphasize academic instruction and active learning strategies; and they provide immediate constructive feedback to students (Berliner and Casonova 1989; Blum 1990; Joyce, Hersh, and McKibbin 1983; Purkey and Smith 1983; Robinson 1985).

***Classroom Management:*** The patterns that have emerged from studying schools reveal that high achieving schools have safe, orderly environments that are conducive to learning. Since order and discipline are an indication of the seriousness and purpose with which a school approaches improving student learning, effective teachers pay attention to developing well ordered classrooms, and constructively disciplined students. Classrooms and classes are well organized and facilities are clean and in good repair. School and classroom rules are clearly articulated, are agreed upon by both teachers and students, and are fairly and equitably maintained. Also, positive behavior is reinforced, and students and teachers attend classes regularly and according to an established timetable (Blum 1990; Frederick 1987; Joyce, Hersh, and McKibbin 1983; Lezotte and Bancroft 1985; Lockheed and Verspoor 1991; Purkey and Smith 1983; Robinson 1985; Scheerens and Creemers 1989; Steller 1988).

***High Expectations:*** There is a great deal of evidence to indicate that low expectations are the norm in too many classrooms around the world. Educational researchers and anthropologists have pointed to the academic success of many newly industrialized Asian nations as examples of the importance of setting high standards for learning and expecting all students to achieve them. There is particular evidence in the research literature that high staff expectations for all students to do well contribute to making a school effective (Brubaker and Partine 1986; Chubb and Moe 1990; Frederick 1987; Levine 1990; Scheerens and



Creemers 1989; Steller 1988). The concept of the school as a place of commitment to learning is communicated clearly by the principal and teachers, and student performance is monitored regularly in effective schools. Also, student assignments are sufficiently frequent and difficult to convey this high expectation and teachers' confidence in students' abilities, and confidence in students is reinforced by giving them many opportunities to take responsibility for school activities. These expectations translate into more positive self-concepts and greater self-reliance among students.

The few studies that have investigated whether head teachers and teachers in developing countries who expect high achievement receive stronger commitment and performance from students whose self-concepts are positive suggest confirmation of the findings from industrialized countries (Fuller 1986; Lockheed and Verspoor 1991). However, in all too many developing country classrooms, particularly in the early primary grades, there is an almost palpable expectation that up to half the students will desert or fail (Kraft 1996; Fair 1994). This has led many policymakers to push for automatic social promotion policies, but in the absence of appropriate remedial instructional programs, this has only helped to continue the lowering of educational quality. Neither automatic promotion in the absence of remediation, nor failure and retention policies have proven successful in most nations. The only policy we have observed that effectively maintains high expectations while providing all students with the possibility of mastering the curriculum is that of flexible promotion such as that practiced in the NEU of Guatemala and the Nueva Escuela of Colombia.

***Student-Teacher Interactions:*** Effective teachers throughout the world genuinely care for their students, but the frustrations of large classes, students who need special care and attention, and the requirements of day-to-day existence often turn even the most caring teacher into a frustrated and, at times, punitive individual. Research has indicated the need for teachers to pay special attention to student interests, problems, and accomplishments (Emmer 1981; Evertson 1981; Rutter 1979).

Self-responsibility and self-reliance on the part of students are also emphasized in the research literature, but once again the lock step curriculum, whole-class instruction, and teacher-controlled classroom management that so dominate developing world classrooms prevent students from developing these skills. There are, of course, exceptions to this bleak picture, the most outstanding being the NEU schools in Guatemala and the Escuela Nueva in Colombia, where students are given exceptional levels of responsibility, and in fact, democratically administer much of what goes on in the school.

***Organized Curriculum:*** The research shows that effective teachers and schools develop a well organized curriculum that emphasizes the acquisition of basic skills and is designed to ensure academic success by defining learning objectives that are matched to identified teaching strategies, available materials, and an integrated sequence of topics across grade levels (Blum 1990; Frederick 1987; Joyce, Hersh, and McKibbin 1983; Purkey and Smith 1983; Robinson 1985; Scheerens and Creemers 1989; Steller 1988; World Bank Policy Paper: Primary Education 1990). This organized curriculum is reflected in a written schedule of work that all teachers in a school use to adapt the curriculum and available materials to their students' needs and to produce local teaching and learning materials. Time lines for units and lessons have also been shown to be important for learning, although in many developing countries the curriculum often becomes a straitjacket, with teachers being pressured to move lockstep through the curriculum, whether or not students have mastered the previous skills or information.

Dalin et al. (1992) particularly emphasize the production of teaching and learning materials by the school. Lockheed and Verspoor (1991) support the importance of an organized curriculum, but they caution that textbooks do not constitute the curriculum. In developing countries, textbooks and other instructional materials are sometimes poorly designed, often have factual inaccuracies and problems with readability, and tend not to promote higher-order thinking skills. However, the evidence is strong that children in developing countries who have access to textbooks and other reading material learn more than those who do not (Farrell 1989; Heyneman, Farrell, and Sepulveda-Stuardo 1981; Heyneman and Loxley 1984; Lockheed and Verspoor 1991). Textbooks are the single most important instructional material, and are particularly effective where teachers use teaching guides with them. The provision and use of paper, pencils, chalkboards, chalk, posters, filmstrips, and audiotapes also facilitate student learning (Lockheed and Verspoor 1991).

While most curriculum guides in both the developing and industrialized countries contain a range of instructional resources and teaching activities, too often in the poorer nations teachers either have no access to the necessary materials, or they have not received sufficient training to make use of more active, creative pedagogies. Teachers often are frightened of straying from traditional teaching behavior or utilizing nontraditional activities for fear of school-director or supervisor criticism. Another major concern in rural, multigrade schools in developing countries is the utter impossibility of a teacher preparing separate lessons for each and every grade and subject area.



Rural teachers complain that they spend several hours daily writing detailed lesson plans for each class and subject. The carefully designed student workbooks in Colombia (Escuela Nueva) and Guatemala (NEU) appear to be a way of maintaining high curricular integrity, while not forcing unrealistic planning on the teacher.

***Clear and Focused Lessons:*** While the need for clear and focused lessons might sound obvious to individuals outside of the teaching profession, they are a key factor all too often overlooked, even by otherwise good teachers. Children need to be appraised of what is to come, both verbally and in writing, as appropriate. Given children's varying attention spans and ability to understand, it is critical to repeat instructions and key points. This repetition, however, should not necessarily be in the same words or with the same specific instructional activity. In too many observations of classrooms in developing countries, ethnographers have observed that the teacher has only mastered one approach to a lesson, topic, concept, or skill, and keeps repeating it over and over again without using different language, new approaches, or another attack on the topic to help all children understand. This becomes a key teacher education role, to provide the classroom teacher with sufficient underlying academic information to assist all children to understand the concept. "Trained" teachers are capable of delivering a particular lesson, but it is only as teachers gain sufficient academic knowledge and background experience that they are generally capable of approaching the same concept in new and creative ways to help each child master it. This is where "teacher education" rather than just teacher training comes into the picture.

A systematic approach to teaching that both increases student achievement and student engagement in the classroom is described in Rosenshine and Stevens (1986), who note the following characteristics of effective directed teaching lessons:

- Begin a lesson with a short review of previous prerequisite learning.
- Begin a lesson with a short statement of goals.
- Present new material in small steps with student practice after each step.
- Give clear and detailed instructions and explanations.
- Provide a high level of active practice for all students.
- Ask a large number of questions, check for student understanding, and obtain responses from all students.
- Guide students during initial practice.
- Provide systematic feedback and corrections.
- Provide explicit instruction, practice, and supervision for seatwork exercises.

***Frequent Monitoring and Assessment:*** Frequent monitoring of student progress in conjunction with prompt constructive feedback are factors that enhance student motivation and achievement (Blum 1990; Brubaker and Partine 1986; Joyce, Hersh, and McKibbin 1983; Lezotte and Bancroft 1985; Scheerens and Creemers 1989; Steller 1988). Monitoring student work helps teachers diagnose what students know and where further instruction is needed. These regular evaluation procedures and feedback should be an integral aspect of the curriculum. Research from developing countries demonstrating the effectiveness of close monitoring of student work and prompt constructive feedback confirms these positive results elsewhere (Arriagada 1981; Lockheed and Komenan 1989).

***Variety in Teaching Strategies:*** Student difference and learning needs can be better accommodated by teachers who employ a variety of teaching practices (Hathaway 1983; Joyce, Hersh, and McKibbin 1983; Levine 1990; Shann 1990). These teaching practices might include individual assignments with worksheets, class discussion, group work explaining, drill-and-practice, asking questions, and cross-age tutoring. When available, teachers may also make use of interactive radio or programmed materials. An emphasis on higher order thinking is important. In his review of five studies in developing countries, Fuller (1986) found confirming evidence in four of these that when a teacher spent more hours preparing for class, the preparation raised the quality of instruction and improved student achievement. Lockheed and Verspoor (1991) suggested that, while the use of worksheets and homework is also effective in developing countries, in many cases the preparation of these requires additional material and out-of-class time that is often not available. Instead, they suggest an emphasis on small, cooperative-group learning, cross-age peer tutoring, and the use of interactive radio, where possible, as cost-effective alternatives. They also note that instruction such as drill and practice, asking questions that stimulate student thinking, presenting information in small hierarchical steps, having students repeat information, and giving constructive feedback can raise academic performance.

Teachers have been encouraged to go beyond the usual drill and practice and checking for understanding and into the realm of creative problem solving. Stallings and Kaskowitz's (1974) research on classrooms reported that student scores on group-administered tests of nonverbal problem-solving skills were higher where the structure allowed students to take more initiative. In these classrooms students asked more questions, worked more independently with manipulative materials, and worked more often on group tasks in cooperative activities. These findings were replicated in some of the research of

Chesterfield and Rubio (1997) in the NEU project in Guatemala. When given the instructional training materials, teachers in even the most difficult of circumstances can provide students with a problem-solving, inquiry-based learning environment.

***Reward and Incentive System:*** Rewards must be appropriate to the developmental level of the students. Effective teachers have also learned when to give rewards immediately and when to delay them in order to teach persistence. Effective teachers and schools also keep parents regularly informed about student progress, and seek parent's help in keeping students working towards excellence. Effective teachers attempt to define excellence by objective standards, not by peer comparison. While research in psychology has presented overwhelming evidence of the importance of rewards, rather than punishment, classroom teachers throughout the world still apply an inordinate number of negative consequences for poor academic work or inappropriate student behavior. Sarcasm, labeling, corporal punishment, shaming, grouping by "intelligence," and a wide array of other teacher behaviors still characterize thousands of classrooms, despite preservice course work in educational psychology, and countless inservice programs on how to motivate students and maintain control in the classroom.

Rewards at the whole school level are also most important. When schools publicly honor and reward academic achievement and positive social behavior, this encourages all students to follow a similar pattern. Effective schools have clearly defined academic standards, and academic success is recognized through regular public rewards and incentives for achievement (Joyce, Hersh, and McKibbin 1983).

This chapter has highlighted key factors in four main areas:

- teacher development as part of an ongoing learning process;
- teacher education making a difference to student achievement;
- costs and cost effectiveness of teacher education; and
- elements of effective teaching.

## Conclusion

Teacher development is a process and, therefore, different training and support is needed at different stages of this continuum. The education that teachers receive has the potential to make a difference to children's learning and therefore warrants careful attention. The features listed above that are associated with effective teaching are critical when planning and implementing support for teachers. While only a few of these features might be addressed in the early stages of some teacher development programs, small first steps are important beginnings in the process of improving teacher quality.

The next chapter provides case studies of three initial teacher preparation programs. Two of these give encouragement for the possibilities of changing traditional formal “preservice” programs into ongoing “inservice” teacher support programs. The third case study gives encouragement for a nontraditional approach with a short initial teacher preparation period. In many communities, alternative means of training maybe required to get sufficient numbers of teachers into working classrooms. Key lessons learned from these case studies and additional research literature are presented in Chapter Three.

## 2. Case Studies of Initial Teacher Preparation Programs

### Botswana Primary Education Improvement Project (PEIP): A University-Based Teacher Education Model

#### Introduction

A visit to a primary school standard 4 classroom reveals some of what has gone on in the development of primary education in Botswana. The classroom walls have student work displayed on them and although the room is used by another teacher and class in the afternoon session, it is neatly arranged with a corner of the room set aside as a reading corner. A set of books is stacked neatly in the reading corner for students who have finished class assignments.

It is a cold winter morning and the children are dressed in some combination of green sweat suits with the name of the school written across the back of the jacket. The children are sitting in groups and talking to each other about an assignment from their English books. The teacher speaks English with the class of thirty-four students for most of the period and uses Setswana when the children appear to be stuck. They answer the teacher and ask questions in English. There is a wide range of participation from the students, although a few do not speak up in class at all.

The teacher is a graduate of the University of Botswana having received her B.Ed. there in 1996. Prior to entering the B.Ed. program at the University she was a teacher for thirteen years, which included four years at this school. She says her teaching has changed a lot since completing her degree. She notices these changes in many other teachers as well. There are a lot more attempts to do remedial teaching, to use “Breakthrough to Setswana” and the project method as well as teaching poetry. More classrooms are arranged so that the learners can be in groups. Teachers often hold workshops with other schools to share teaching ideas.

Some things stand out in the lesson. There is no chorus and drill of phrases the children do not understand, there are few recall questions asked by the teacher, and the children in the front of the class are not the only ones to participate. Children participate freely in answering *and* asking questions, they are confident in their ability to speak English, and they engage in dialogue with the teacher and each other over the work at hand.

Subtle but important changes in Botswana primary classrooms are evident and important. Equating the changes in any sector of the education system of Botswana with one or another aid project would be misguided. Rather, aid projects such as the PEIP offer a process-oriented, collaborative, and integrated approach to working with developing country educators on improving educational quality.



Julie Owen-Rea

When Botswana gained independence from Britain in 1966 it was among the poorest countries in the world. Infrastructure was virtually nonexistent, there were few productive assets, and the population was mostly uneducated (Hopkin 1996; Maipose, Somolekae, and Johnston 1996). Today, Botswana is a middle rather than low-income country, has had one of the highest economic growth rates in the developing world, nearly universal primary education, and social indicators among the best in Africa (Maipose, Somolekae, and Johnston 1996).

A number of factors have been cited for the rapid economic and social development of Botswana, among them the effective use of development aid, increased revenues from mining and beef exports, wise management of natural resources, a stable multiparty democracy, and an efficient civil service (Evans and Knox 1991; Hopkin 1994, 1996; Maipose et al. 1996; O'Grady 1995).

This case study examines one education project in Botswana—the Primary Education Improvement Project (PEIP), a United States Agency for International Development (USAID) contract to Ohio University. Before going into the details of the PEIP, however, an examination of the development context of Botswana since independence will help set the stage for understanding the project. Donor assistance in Botswana, primarily from the United States, Norway, Sweden, Denmark, Germany, and Britain peaked in the 1980s at one of the highest per capita levels in Africa. Yet it was not simply the amount of aid that contributed to the country's economic growth; it was the way the aid was used that differentiated Botswana from other countries. A study of aid effectiveness in Botswana by Maipose, et al. (1996) noted that:

Botswana is perhaps unique among African countries in the extent to which aid resources are centrally managed and fully integrated into a national development planning and budgeting process. The government has taken care, however, not to spend more than the economy could absorb and to avoid the boom and bust cycle common to mineral-driven economies.

Hopkin (1996) also argues that Botswana's effective use of aid stems from its commitment to use it to complement its own resources, and has used it as part of its development strategy. In addition, the government was proactive in developing collaboration among donors.

#### **Developments in Education**

During the period of Botswana's rapid economic growth in the 1970s and 1980s the government pursued a "policy of redistributing wealth



into investments in infrastructure, health and education” (Maipose et al. 1996). The primary education sector was the main beneficiary of this policy. Today Botswana is one of the few African nations with a fully functioning education system. This success is due in part to the government’s responsible management of resources and its commitment to allocate as much as 23 percent of the national budget to education.

### **The Primary Education Improvement Project**

The PEIP was launched in 1981 as a five-year project designed to assist the Government to increase the access, efficiency, and relevance of primary education. At the start of the project, Botswana primary schools were suffering from a crisis of underqualified teachers and poor quality primary education. The PEIP was meant to address the issues of underqualified teachers, localize teacher educator positions at primary teacher training institutes (PTTCs), and assist in improving the quality of primary education. This was carried out for the most part through the establishment of a Department of Primary Education at the University of Botswana (which provides two and four-year degrees to upgrade primary school staff and train teachers for PTTCs respectively) and inservice education of primary teachers, administrators, and Ministry of Education officials.

In establishing the Department of Primary Education, the PEIP team from Ohio University served as faculty members and the chief of party served as the dean of the Faculty of Education. While Ohio University faculty were in positions in the Department of Primary Education, suitable candidates were identified for graduate-level training in the United States. Over the life of the project, ten Botswana trained at the master’s level and six trained at the doctoral level returned to Botswana to take up posts at the University of Botswana and in the Ministry of Education (Maipose et al. 1996).

By 1986 the graduates of the University of Botswana’s B.Ed. program had staffed the PTTCs and there was a spillover of graduates into the inspectorate, the curriculum development unit, and other departments of the Ministry of Education. In 1986 the PEIP was extended for five more years. Project aims for the second phase were expanded to:

- establish a two-year Master’s of Education program in primary education at the University of Botswana;
- increase the number of students entering the B.Ed. and diploma programs at the University’s Faculty of Education;
- provide the Department of Primary Education with a professional, mature staff of Botswana;
- provide a core staff at PTTCs prepared to assume greater responsibility for the delivery of a Diploma in Primary Education;

- establish an institutional network for providing inservice education; and
- coordinate and assist in the evaluation, revision, and implementation of PTTC curricula appropriate to the training needs of primary teachers.

Maipose et al. (1996) in their study of aid effectiveness in Botswana and successful institutional development projects in Africa, discuss the PEIP's success in light of a high failure rate for other similar projects in Africa:

Review of such projects throughout Africa cite a failure rate often exceeding 50 percent for projects with a major institutional development component. PEIP established the Department of Primary Education at the University of Botswana, and helped to establish and institutionalize the regional inservice education centers. Both of the institutions are now fully localized and still operating five years after PEIP's conclusion. While establishing new institutions and programs is arguably easier than trying to reform or improve existing ones, PEIP does provide lessons for other institutional development efforts.

#### **What Made the PEIP Successful?**

What were the factors that led to the success of the PEIP project in assisting the Government of Botswana in improving primary education? What lessons can be learned from this experience? The next section describes some of the factors that led to the success of the PEIP project. The discussion identifies discrete aspects of the project that led to its success, but it should be kept in mind that it is likely that the factors in concert were more effective in bringing about sustainable development in education than any one factor was on its own.

Drawing on project evaluations, midterm reviews, published books and articles about the PEIP, and interviews with educators in Botswana and those involved in the PEIP, a number of aspects of the project's design and implementation emerge as contributing to the project success. These include collaboration, sustainability, ownership, flexibility, articulation of the project with the whole educational system, dedication and experience of the PEIP team, and an adequate time frame for implementation. Each factor is discussed below.

***Collaboration:*** Those involved with the PEIP often remark on the high level of collaboration between the Government of Botswana, Ministry of Education officials, and the PEIP advisors. The PEIP made this collaboration an explicit part of the program strategy and recruited



technicians to the team that were highly process-oriented in working with others. Even at the early stages, team members emphasized the complexity of implementing the project across institutional lines as well as the importance of consultation and consensus before making decisions.

In 1998, six years after the project ended, participants still recall the collaborative relationship. The director of the Primary Education Department in the Ministry of Education had this to say about the PEIP:

What we as Batswana want has always been important to PEIP. It has always been a Botswana Primary Education program. The context of the project was based on the emerging needs of Botswana. For example, special education, administrator training, and remedial teaching were all areas that we identified as needing improvement and support from the PEIP.

Others commented on how the PEIP team members were able to recognize and avoid potential conflict, and include a high degree of local participation that was oriented to increasing the project's responsiveness to the country's needs. Another educator commented that while taking into consideration local needs, the PEIP managed to provide expertise that allowed Batswana to plan their own programs.

Collaboration among donors at the national level was also part of the PEIP process. The British, Danish, Swedish, and German assistance organizations worked cooperatively on the development of primary education in Botswana in the 1970s and 1980s (Evans and Knox 1991). For example, while the PEIP was responsible for the establishment of the Education Centers and creating the inservice network, the British Overseas Development Agency (now the Department for International Development, or DFID) provided management training.

***Sustainability:*** Sustainability is written into most project designs, but achieving it is often an elusive goal. Sustainability—the likelihood of the effects of the project's development impacts being maintained after funding has stopped—is seen by many to be one of the PEIP's major successes.

Sustainability was built into the PEIP from the start. According to the chief education officer in the Ministry of Education's Curriculum Development and Evaluation Department, the design emphasized capacity building, localization of posts, and the building and organizing of education centers. The project was based on a needs assessment done prior to the project and the whole project responded to

the needs of the people. Moreover, the design stage of the project involved a high degree of consultation and dialogue.

This project design process included extended consultations with the Government and widespread dissemination of information about the project to the public. Involving the Batswana in the development of the project went a long way to ensure that the needs of the country were paramount in its implementation. What Batswana wanted was reflected in the project.

An inservice education network with 90 percent Batswana staff is fully functioning in Botswana. The University of Botswana's Faculty of Education is nearly localized with most faculty holding Ph.D. degrees. Primary teacher training institute faculties have been localized since 1986 and beginning in 1997 the PTTCs will be offering diploma courses nationwide.

System-wide, education in Botswana is well organized and effective in reaching the goal of universal basic education. Enrollment rates for grades one through ten are close to 100 percent. This remarkable achievement is, of course, not totally attributable to the influence of the PEIP. The effects of the PEIP can, however, be seen throughout the system.

The Department of Primary Education offers a two-year diploma and a four-year B.Ed. in primary education. A mature-age entry scheme into University-level courses was developed for experienced teachers who had no university qualifications. In addition, an M.Ed. program was established that includes specializations in primary science, mathematics, language arts, social studies, primary education, and administration. In summarizing the PEIP's influence in building institutional capacity, Knox and Evans (1991) state that "At the time of time of PEIP's completion, approximately three-fourths of the PTTC tutors, one-half of the primary education field officers and three-fourths of the professional education center personnel were graduates of the Department of Primary Education."

According to the interim evaluation of the PEIP in 1989, the Department of Primary Education would be sustainable with continued support from the Ministry of Education and the University of Botswana; Primary Teacher Training College institution building and curriculum revisions would be sustained given modest additional support from the Ministry and donor aid; and the inservice network would be sustained by the Ministry with continued deep support for this initiative (Munger and Benbow 1989).

Two other important aspects of sustainability that were key to the PEIP's orientation to developing sustainable education programs in Botswana were the effective linking of technical assistance and training, and the effective relationships that were created between project advisors and their counterparts.

The PEIP's ultimate goal was to replace the U.S. advisors with trained Batswana, so candidates first served a brief period as assistants to U.S. advisors (to gain a better understanding of the skills they needed to acquire), before leaving for two years of Master's training. In most cases their U.S. colleagues were in Botswana when they returned from the United States, which facilitated the transition of returning Batswana into positions held by advisors. In many projects, there is little or no overlap between trainees and the technical advisors they are to replace (Maipose et al. 1996).

The PEIP could be considered a pilot program in terms of working with counterparts. The original and conventional way of working with counterparts is in a one-on-one relationship between counterpart and advisor, but with the PEIP this relationship evolved into more than one person working with a PEIP advisor. After working with counterparts one-on-one it would often be the case that the counterpart became more marketable and left for other positions. This would create a situation where an advisor had to start working with a new counterpart. The project team realized that it had to plan for staff turnover.

Lastly, it should be noted that sustainability in the case of Botswana is connected to economic and professional conditions in the country. The Department of Primary Education successfully localized because nearly all the Batswana trained to replace PEIP advisors actually returned to work in the Department. Had professional and economic prospects been significantly different, this might not have been the case. The PTTCs and regional education centers, in contrast, have encountered greater difficulties in attracting and retaining trained personnel because salary scales are less competitive than for other positions with similar professional requirements (Maipose et al. 1996).

***Ownership:*** Six years after the close of the PEIP project, Batswana refer to the PEIP as a *Botswana* project. Educators in Botswana who had some connection with the PEIP still feel a relationship to the project. As stated previously, the process orientation of the PEIP team and its commitment to consultation and collaboration started early in the project and continued throughout its decade-long engagement in Botswana. At the national level, a PEIP advisory committee incorporated a wide range of stakeholders into the project, including

the Ministry of Finance and Development Planning, the teachers' union, teachers' colleges, and various departments in the Ministry of Education. This committee was not decision-making but had quite a bit of influence on the dissemination and input of ideas into the project as well as served as a network of support for the project. As a result of consultations at the national level, people in government identified closely with the project.

At the school level, committees were developed that had the responsibility for selecting participants for PEIP-sponsored workshops. The project was seen as a positive factor in school development and this contributed to getting head teachers on board.

Ownership of the project was widespread due the inclusive orientation of the project's team. This was noted in one of the project's later evaluations. As a result of a strong and widespread sense of ownership, project initiatives received the necessary attention and resources during and after PEIP's conclusion.

***Flexibility:*** Another prominent factor in PEIP's success was flexibility, which manifested itself in several ways. First, the advisors on the Ohio University team were seen as responsive to the needs of Botswana. At Ohio University, where a number of Botswana studied for master's and doctoral degrees, an effort was made on the part of the University to understand the Botswana education system and adapt programs and courses that would be relevant to them. Support to Botswana students while in the United States was also strong. The close connection between the PEIP advisors and Ohio University clearly played a role in this training component of the project. Some Botswana educators characterize the degrees as relevant and of a high standard, as opposed to some university degree programs overseas that are designed ostensibly for developing country students yet do not provide opportunities for foreign students to interact with host-country students. In Ohio, Botswana would sit in the same classes as students from the United States, and the program allowed them to get first-hand experience of educational issues in the United States.

A review of project evaluations yields yet another level of flexibility. The external evaluators themselves were generally willing to take a broad view of project effectiveness, beyond simply judging progress toward explicit project goals. For example, the PEIP evaluation praised project staff for its willingness take on additional Ministry of Education priority initiatives, saying that the project's overall impact was increased as a result (Maipose et al. 1996).

At the University of Botswana another example of flexibility within the project was the creation of a mature entry scheme for experienced teachers into the Bachelor of Education program even though they did not have formal qualifications (passes at the grade 12 level). No other department at the University had this type of scheme. It was widely understood that for the education system to take off in terms of development, qualified people were needed. The mature entry scheme was developed and then broadened by providing inservice training for those teachers still in the field.

The role of the advisory committee provides another example of the PEIP's flexibility. Although the focus of the project was on teacher education and development, the advisory committee would often recommend areas for the project to support that were not directly related to teacher education. The project was able to direct efforts into these areas of identified need.

***Dedication and Experience of the PEIP Team:*** Ohio University provided the PEIP with dedicated educators with years of experience in teacher education as advisors to the Ministry of Education. Furthermore, the project provided a continuity of technical advisors over the life of the project. In the second phase of the PEIP, four of the seven long-term advisors served in their positions for five years. The advisors also had considerable experience in living and working in developing countries. Some had previous experience working in Botswana.

There was a great rapport among the members of the PEIP project team and the Botswana. This rapport, combined with the capacity-building approach, created a lot of positive sentiment toward the project by the Botswana. The PEIP project advisors demonstrated an understanding of the Botswana cultural context. According to another Ministry of Education official, "They knew how to communicate with Botswana. They understood that it is important to face us and carry on a dialogue and discussions in order to communicate ideas. In some other projects, documents were produced for us to read, and they assumed they were communicating, when in fact this was not the case at all."

***Articulation With the Whole System:*** While the PEIP was a focused project with specific and well known objectives, the project supported other national initiatives related to the improvement of primary education. During this period in Botswana's educational development there was an emphasis on decentralizing the education system. This required that PEIP advisors, according to Botswana's Permanent Secretary in the Ministry of Education, had to "work not only across

sectors and departments within education, they also had to work across levels from the national to the district, village and school level. PEIP was first and foremost integrated into the activities of the Ministry of Education. Projects are generally not integrated; they are set up on their own.” (Mogami 1997)

Members of the PEIP team supported the “Breakthrough to Setswana” program by serving on curriculum panels for primary school subjects as well as for PTTIs, serving in line positions in the Ministry of Education while Batswana were studying for graduate degrees, training the inspectorate in the clinical supervision model, providing inservice education for primary teachers in the field, supporting the introduction of the Project Method to teacher educators and primary teachers, establishing a network of inservice education centers, and developing the Department of Primary Education at the University of Botswana. In sum, the project worked in preservice and inservice teacher education, curriculum development, University and PTTC institutional development, advised in areas of educational policy, and carried out administrator and education officer training. This interactive mode of institutional development—in a sense, the interactive effects of PEIP and non-PEIP activities—contributed markedly to the achievement of the PEIP’s objectives (Munger and Benbow 1989).

***Adequate Time to Implement the Program:*** The PEIP lasted from 1981 to 1991. The two chiefs-of-party during the life of the project commented on how the project’s time frame contributed to its success:

Potentially the most important lesson to be drawn from the PEIP experience is that there are no “quick fixes” in the complex arena of school improvement. The near universal search for ways to create better schools is a continuing one and so it will probably always be.... PEIP, after ten years, made a contribution—hopefully a significant one—to the search for better teaching practices in the primary schools of Botswana. (Evans and Knox 1991)

Maipose et al. (1996) address the time factor in relation to the PEIP’s overall effectiveness:

The project design for PEIP took an explicitly long-term approach to developing institutional capacity for teacher training in Botswana, but made allowance for filling immediate needs while local capacity was being developed. PEIP was a long-term and sustained effort, with a project life of ten years,



with some of its initiatives continued further with the BEC [Basic Education Consolidation] project. Project design and goals were straightforward and focused, and timetables usually realistic. Successful institutional development usually requires a decade or more for long-term sustainability.

The PEIP began as a five-year project but it soon became clear that the developments in education made during the first phase would need further input in order to be sustainable. The successes in the first phase led to agreement about the continuation of the PEIP for the second phase.

### **What Changes Have Come About as a Result of the PEIP?**

What has changed in Botswana after more than twenty years of making education a high national priority, committing large amounts of resources to education, and large donor agency inputs into the development of education? What changes can be attributed to the PEIP? Educators in Botswana are the first to admit that changes at the classroom level have been modest. Yet according to Hopkin (1997), in the larger picture, major changes have come about in the “formal education system in terms of institutional development, localization of staff, staff training and development, the development of relevant curricula, and the quality of programs offered in institutions.”

In trying to uncover the specific contributions the PEIP made to these educational developments, one must be cautious. The integrated, collaborative, process-oriented approach embedded in the PEIP modality makes it hard to identify what was specifically attributable to the PEIP. Rather one should look at the project as one section of the orchestra in a concerted effort to develop education in Botswana.

Botswana educators, reflecting on the changes in education over the past twenty years, identify educational supervision and management, inservice and preservice teacher education, and the general orientation toward learner-centered methods in the education system as areas where the most change has occurred. One education center director had this to say about educational change in Botswana:

There are changes in the delivery of education, although they are not major. There is an emphasis on child-centered methods, but the concept is not very clear with teachers. Teachers do try to engage the learners and they try new methods. There is change, but it is taking place very slowly. When I was a teacher, we didn't have workshops. Now teachers know they have to address their own needs. That was not the case ten years ago.



Now we are carrying out school-based workshops based on teaching and learning styles. It's gradual, these changes.

At PTTCs, teacher educators still rely on lectures but there is often a lot of group work. Although teacher educators in general have an understanding of learner-centered educational theories, there is less of an understanding and skill regarding their implementation into teaching methods. Hopkin (1997), in a study of teaching and learning styles in Botswana teacher training colleges, found that “whilst teacher educators advocate the activity-based and student/pupil-oriented learning promoted by policymakers, in reality they utilize teacher/lecture-dominated methods.” Also there is an emphasis on coverage because there is pressure to get through the material. Students expect one-way information.” Clearly there is room for orienting primary teacher trainees in new ways of learning.

The management of the education centers is totally a Botswana operation. There are no expatriates running the centers nor have there been for a long time. In addition to the centers being attractive places with gardens and all the amenities, they look well used: there are a lot of materials on walls of the workshop rooms, the libraries are reasonably stocked and well managed, and the production rooms appear to be productive.

Inspection used to have an authoritarian approach, relying on fault-finding. The PEIP conducted many workshops with head teachers, Ministry of Education officials and University of Botswana faculty. The clinical supervision model was introduced under the PEIP as opposed to the inspection model. According to a field education officer responsible for school supervision, “teachers in schools have come to expect a collegial relationship with field education officers. They expect to have an advisor in the role of inspector. Inspectors are now more approachable and are seen as helpful.”

### **The Basic Education Teacher Diploma (BETD) —Namibia: Learner- Centered Liberatory Teacher Education**

#### **Introduction**

Namibia was a colony of Germany from the late 1800s until the First World War when South Africa took control of South West Africa and later assumed a mandate for the its control under the League of Nations. South Africa's rule was characterized by genocide, oppression by the white minority of the black majority, and the development of a segregated society under apartheid policies.

Namibia gained independence from South African rule in 1990 after more than twenty-three years of war. The South West African Peoples Organization (SWAPO) was organized as a resistance movement



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against the oppressive apartheid policies in 1960. Large settler camps for Namibians developed in Angola beginning in 1974 when many young Namibians fled their homes because of increased brutality and oppression within the country. Educational ideas and programs developed in these camps by SWAPO became the venue for trying new reform ideas, many of which have been carried over into the educational reform agenda of independent Namibia (Angula and Lewis 1997).

This case study examines the development of teacher education in Namibia within the context of the country's struggle for independence and the subsequent efforts to reform education in a post-apartheid government. The external assistance provided to the Government of Namibia by the Swedish International Development Authority (SIDA) through the Teacher Education Reform Project (TERP) to support teacher education is also included in the case study.

Ethnic divisions run deep in Namibia as a result of the apartheid policies of the South African regime. Hubbard and Solomon (1995) describe the stratification of society during the colonial period and some of the effects this had on Namibia:

During the colonial period the Namibian population was stratified into three racial groups—blacks, whites and coloreds, a colonially created category for mixed-race persons. As a divide and rule tactic, eleven population groups identified by the colonial authorities were assigned second-tier governing bodies, with the black groups relegated to different geographical homelands. Namibia's rich cultural variety became the basis for profound political and economic discrimination, the effects of which are proving difficult to eradicate in the post independence era.

### Teacher Education

Education goals in independent Namibia (1990) are oriented to the undoing of apartheid, and the consequent change in the purpose of schooling from that of selection and the education of an elite to that of educating all (Angula and Lewis 1997). It involves replacing the philosophy and practices of education of the colonial teacher-centered Bantu education with an emphasis on control, rigid discipline, rote learning, and negative assessment principles (Nujoma 1991) to learner-centered, participatory, and democratic education. At independence, the four colleges of education embodied the educational provision polarities described by Minister Angula. Windhoek College of Education, which had been training white teachers, could easily have

been mistaken for a European university, with state-of-the-art science and language laboratories, modern physical education facilities, and student–lecturer ratios as low as 12 to 1.

The three northern colleges serving the black populations were little more than glorified high schools. Indeed, one of the colleges was housed in a section of a secondary school. The colleges in the north were training black teachers for disqualification to the system (Dahlstrom 1995), since the certificates the graduate received were not recognized in the government salary scheme. Faculty of the colleges were receiving salaries on the same scale as high school teachers, and some of the instructors had had little training beyond the high school level. Teaching was carried out in the mornings with the use of study guides comprising articles copied from different sources provided by the substitute university (Dahlstrom 1995).

Apartheid policies have been discontinued by the new Ministry of Education. However, under the policy of national reconciliation, those who worked for the apartheid regime have job protection. One of the consequences of this policy was the mediation of the educational policy that was developed by SWAPO in exile. In teacher education, this meant that the philosophy and approach of the Integrated Teacher Training Program (ITTP) would have to be transformed to provide conservative educators and parents with a more palatable teacher education program. Conservatives were concerned that programs such as the ITTP were lowering standards because of their focus on critical inquiry, production, and professionalization rather than the academics of becoming a teacher. Despite the mediating effects of the political reality in post-apartheid Namibia on policy developed in exile, there has been considerable change in Namibia's education system since 1990. Dahlstrom (1996) summarizes these changes when he says:

A lot has been achieved during the last six years in Namibia. The ethnic authorities have been dismantled and a national system of education is in place. New curricula have been developed for almost all subjects in basic education, new textbooks have been published, a new career structure for teachers has been developed, and a new teacher education program has been in operation the past three years and produced the first cohort of Basic Education Teacher Diploma (BETD) teachers now serving in the basic education system since the beginning of 1996.

These changes in education since independence are evident in the new program for teacher education, the BETD.

**Teacher Education in Independent Namibia**

***Basic Education Teacher Diploma (BETD):*** The BETD, preparing teachers for grades one through ten, received its first intake of students at Namibia's four colleges of education in 1993. The seeds of this program's development were planted in the early 1980s in education centers in Angolan settlement camps for Namibians in exile. Nahas Angula, the present Minister of Higher Education, Vocational Training, Science and Technology (formerly the SWAPO Minister for Education) describes the attempts to improve teaching in Angolan education centers for Namibians:

The present teacher education programs were an outgrowth of the attempt to improve teaching in refugee camps. We had secondary school leavers who spent one to two years [teaching] in the camps. They really didn't have any teaching methods. We worked with them in classrooms, giving them training in teaching skills. A lot of it was based on the work of a French educational philosopher who focused on learning by doing. The advisors who are now working with TERP and the BETD were responsible for bringing this approach to the camps.

After independence SIDA, through the TERP, provided assistance to the Ministry of Education and Culture and the National Institute for Educational Development (NIED) to design, implement, evaluate, and develop faculty for the BETD program.

The program is a three-year diploma course. In the first few years, the program required a grade twelve certificate or a grade ten pass and two or more years of relevant work experience. As early as 1996 there was sufficient demand for places in the BETD that the latter requirement was eliminated. The first year of the program consists of foundations courses meant to consolidate content area knowledge from high school as well as introduce student teachers to theoretical and practical aspects of the teaching profession. By the end of the first year, students select a major and minor for their focus of study during the last two years. Subject area courses are meant to be taught within a pedagogical milieu (du Plessis 1995), which means that the methods used in teaching the subject should model the desired types of learner-centered methods to be used in basic education classrooms. Additionally, the methods used in the content courses are themselves the subject of investigation, study, and dialogue within the classes. By teaching science, for example, through a pedagogical milieu, science methods and content are integrated.

Other important components of the BETD are cross-curricular integration, the integration of environmental education throughout the

subject areas, action research projects, and a twenty-one-week practice teaching component called school based studies.

***Teacher Education Reform Project (TERP):*** According to Lars Dahlstrom, Project Director of the Namibian TERP, “We have a view of education not as a technical enterprise but as a way of supporting development; it has to do with democracy and solidarity. Inequalities of society have to be addressed by education. Education must contribute to changing society so people become more involved in determining how their life will be in the future.”

The TERP, financed by the Swedish government through SIDA, has been supporting teacher education reform in Namibia since 1992. The TERP works closely with the Ministry of Basic Education and Culture (MBEC), the Ministry of Higher Education, Vocational Training, Science and Technology, the NIED, and the four colleges of education to support the implementation of the new BETD course.

Far from starting from scratch, what is now called TERP supports a process of development of the Namibian teacher education program that began in 1983 in Namibian settlement camps inside Angola. Most of the TERP project advisors worked with SWAPO in exile, training teachers for Namibian children living in Angola up until 1989. The Integrated Teacher Training Program (ITTP) developed in exile with the assistance of SIDA was, of course, influenced by the social and political context of the liberation struggle. Working with Namibians in exile firmly grounded the project in a “liberatory” educational pedagogy and provided the project with a strong sense of continuity and an understanding of the sociopolitical context in which the new teacher education program was to be situated. Elaborating on teacher education in exile, Dahlstrom says that:

The educational experiences that have been part of the cooperation between Namibian and Swedish educators can to a large extent be analyzed along the lines of community building. The Integrated Teacher Training Program (ITTP) created possibilities for many Namibians, in addition to the rather smaller number of students directly involved in the program, to meet alternative educational practices in exile, as the situation at the education center in Kwanza-Sul [Angola] created possibilities for educational and sociopolitical effects beyond the classrooms. At first the ITTP was not at all popular amongst the untrained teachers or even amongst the leadership in the camp, because it did not respond in a stereotyped way to the immediate needs identified by both individuals and SWAPO. (1996)

The next section will examine six of the relevant areas of TERP support to the BETD. These represent some of the more important and innovative ways of providing development assistance to teacher education. The support areas are reform facilitators, democratic processes of curriculum development, action research, learner-centered education, staff development, and school-based studies.

### **Reform Facilitators**

TERP posted experienced educators as advisors at the education colleges (two at Ongwediva and one each at Rundu, Windhoek, and Caprivi) in the role of reform facilitators. Most of the advisors had worked with Namibians in exile. The main role of the facilitators was to assist in the implementation of the BETD teacher education program. In addition to providing instruction for the B-level, higher diploma course, and other staff development activities, the facilitators assisted teacher educators with the development of school-based study programs and interpretation of the broad curriculum and subject syllabi. Although reform facilitators taught BETD classes, they were often involved in developing courses with teacher educators. They also helped interpret the new assessment procedures and assisted in the development of assessment schemes and practices. A large part of the facilitators' work was to assist in the interpretation of learner-centered educational philosophy and provide advice and support in putting the philosophy into practice in college classrooms.

The Education Development Units (EDUs) contain resources for teacher educators such as materials to produce teaching aids, computers, copy machines, and an up-to-date educational reference library. The main function of the EDUs is to support the colleges in their growth as tertiary institutions. These quickly became meeting places for teacher educators.

Feedback from teacher educators and educational administrators on the role of the reform facilitators indicates that these TERP advisors had had major effects on the reform of teacher education in Namibia. Others have praised the collaborative way in which the reform facilitators have worked. The process works by providing technical expertise when needed. Teacher educators develop solutions to college problems, with input from facilitators. Through this collaborative process, a greater sense of ownership was developed for the BETD in general and specifically for such components of the BETD as subject area curriculum, school based studies, and action research. One of the reform facilitators at a northern college reflected on the role of TERP in the development of the college's faculty:



We have twenty-five lecturers and we are very nearly localized. They are committed to change. They want to see the reform work. They are analytical and critical in implementing reform. This is due in part to the support provided by TERP. Reform facilitators are there to help in this process.

### **Democratic Processes of Curriculum Development**

In 1992, TERP supported the development of the curriculum for the new teacher education program through a broad consensus-building effort. The process of curriculum development in the BETD was radically different from former curriculum development processes, beginning with the development of the broad curriculum for teacher education and the subject area curricula. One of the essential components of the BETD was that it was a unifying curriculum, providing a base from which all teacher education in the country would operate. This was meant, in large part, to counteract the divisive effects of separate teacher education programs in the country for whites and blacks. By providing one program of teacher education for all teachers (at one point in the early 1990s there were at least five different preservice teacher education programs operating in the country), teacher education was perceived as making a large contribution to national unity.

The curriculum development process involved building consensus on a national scale, which was a radical departure from Bantu education's top-down style and rigid curriculum design process emphasizing factual content and prescriptive scope and sequence (Avenstrup 1994). Subject panels were formed from a broad base of educators and the private sector in Namibia. In many cases the panels had international representation. Using the framework for curriculum development designed by NIED, the subject area panels met numerous times with groups of primary and secondary teachers, teacher educators, subject advisors, regional planning officers, student teachers, principals, inservice officers, community leaders, and others for input, criticism, comments, suggestions, and dialogue.

Over 500 Namibians participated in curriculum panels and seminars to develop the first year curriculum (Dahlstrom 1995). Final approval of the documents was made by the Ministry's Curriculum Coordinating Committee. Throughout the initial tryout period, the panels met periodically to interpret the curriculum, suggest changes, and further develop the document. The fact that the process of curriculum development for the new national program of teacher education involved consultations among educators and others meant that the curriculum in Namibia was becoming more democratic and "Namibianized."



The curricula for each subject area were designed to provide a framework from which each college could develop its own profile and pedagogical culture within a common system (Avenstrup 1994). Subject area curricula for integrated science, social studies, Namibian languages, agriculture, English, and educational theory and practice provide broad outlines of content and objectives that are meant to be the unifying element of the curriculum across the country. Interpretation of the curricula into syllabi for each subject at the college level allows for greater participation in the subject development by college faculty, increases ownership of subject syllabi by teacher educators, and increases the relevance of the content to student teachers.

### **Action Research**

One of the pillars of the BETD program is action research. To offset the years of imported curriculum and the dearth of knowledge on teaching and learning in Namibia, action research was introduced into the BETD not only to contribute to knowledge of the Namibian context, but to raise the awareness of student teachers and teacher educators to the sociopolitical contexts in which they work and to demystify educational research. The introduction of action research has made the production of knowledge accessible to student teachers and teacher educators. According to Dahlstrom (1996), these types of grassroots activities are crucial in a transitional society to create a new knowledge base in line with new policies; otherwise, the right to define the common and official knowledge will remain in the hands of the still powerful elite.

Andersson and Mbodo (1995) in their study of BETD action research at the colleges of education, report that the majority of student teachers considered action research projects to be tools for improving their educational environment. Further, they note that student teachers have developed academically and professionally through their projects. Action research is also seen as a means of providing student teachers with a degree of professional autonomy, creativity, and self-reliance.

One of the goals of the BETD is to create a community of critical practitioners. Through action research and project studies, student teachers engage in critical inquiry into educational issues at the college, school, and community levels. These activities help empower education practitioners at all levels with knowledge and skills in line with the democratization of Namibian society (Dahlstrom 1996).

Examples of action research projects carried out by student teachers at one college described by Mayumbelo (1996) and BETD 1C Students, Yurich and Meyer (1995) include research on absenteeism, learner participation, discipline, difficulty with the medium of instruction,

truancy, learners not understanding or failing mathematics, the importance of science apparatus in schools, the relationship between distance from school and learner performance, the relationship between eating breakfast and student performance.

### **Learner-Centered Education (LCE)**

Namibia is emphasizing the provision of basic education (grades one through ten) to all its children. Departure from educating a few under the apartheid system to providing education for all was accompanied by a shift from teacher-centered to learner-centered teaching methods. Teaching and learning as a didactic one-way process of information transfer from the teacher to the learner was (and to a certain extent still is) the norm in Namibian classrooms. In independent Namibia, learner-centered education has been introduced in keeping with the goals of democratizing education and improving educational quality.

At colleges of education, LCE is expected to be modeled by the teacher educators in their own classes. The BETD philosophy is grounded in the principles of LCE and has played a major role in implementing this aspect of educational reform. During school-based studies (practice teaching), teacher educators in workshops with support teachers have modeled learner-centered lessons, carried on discussions about the approach, and made presentations on LCE. This has raised the awareness to the point where support teachers now need little orientation to what LCE is about.

Although early evaluations of the BETD showed positive improvement in the instructional methods of teacher educators, most educators admit that there is a long way to go in providing adequate and widespread models of learner-centered teaching for student teachers. One reform facilitator reported a need for improvement in teacher educator pedagogy:

Learner-centered education has not progressed significantly. We have not seen an expansion of the teaching repertoire. Group work is equated with learner-centered education; if the students are talking that's also learner-centered education. People are able to talk about learner-centered education. Yet there is still a lot of teacher talk and question and answer in college classrooms. Beliefs regarding learner-centered education may have changed but the practice hasn't. This may be because teacher educators haven't seen learner-centered education in action, so it makes it hard for them to change.

Teacher educator pedagogy remains for the most part centered on lectures, and there is ample evidence that teacher educators do not fully

understand and practice LCE. Within a few years of the implementation of the BETD, however, there have been major shifts toward LCE. Although this remains largely a shift in the rhetoric of teaching and an increased understanding of the theory, this has to be seen as a positive development that is preceding the implementation of the practice of learner centered methods in Namibia classrooms and teachers colleges. In addition to the numerous inservice education programs taking place in Namibia, particularly at the junior secondary level, the implementation of the BETD has been influential in bringing about this change.

### **Staff Development**

An ambitious program of staff development for BETD teacher educators, administrators, and some support teachers was initiated by TERP in 1993 with the introduction of the B-level course. This integrated course focused on action research and the development of critical practitioners. The program ran parallel to the introduction of the BETD and, in 1996, led to another course called the higher diploma course. This course is intended to lead into a Master's level course for educators wishing to continue their studies.

These broad courses are taught on weekends and holidays, with regional study groups meeting locally at other times during the year. This model for staff development creates a strong feeling of togetherness and opens up for discussions and support through community building (Dahlstrom 1996). Instructors for the courses include TERP reform facilitators, TERP advisors, and university education professors from Europe and the United States. Demands for these courses is high, with the latest higher diploma course having thirty-six participants. This represents a major shift in the sense of professionalism among teacher educators, who only a few years ago were classified (and who thought of themselves) as high school teachers.

TERP also supported a series of national conferences on teacher education. These were particularly important in the early stages of the program to orient teacher educators toward the new BETD. The conferences also provided opportunities for teacher educators and Ministry and NIED officials to discuss subject area curriculum and assessment issues and make presentations on developments in the BETD at the four colleges of education. The national conferences also served an important community-building function by bringing together teacher educators from the colleges who—in the apartheid era—had had little contact with each other.

### **School-Based Studies**

The BETD program has dramatically shifted the philosophy and implementation of teaching practice from the two-week sink-or-swim approach practiced in the past. School-based studies consist of twenty-one weeks of student–teacher study in schools and communities (three weeks in year one, six weeks in year two, and the entire second term—thirteen weeks—in the third year of the three-year program).

In addition to observations and teaching in classrooms, student-teachers are expected to produce teaching and learning materials, carry out child studies, arrange parent meetings, complete community and school-based projects, explore the school administrative system, learn the school's rules and regulations, and undertake remedial teaching (Kandjulu 1997).

While the extent of the activities that student teachers carry out at schools is also a major change in the way teaching practice is carried out, the relationships that develop between colleges of education and support schools is also a departure from the past. Whole schools act as supports for BETD student teachers, with principals and teachers getting very involved in the process. Prior to the arrival of the student teachers to schools, workshops are conducted with support school teachers and principals to orient them toward the philosophy and approaches of the BETD. This has served to clarify issues of supervision and educational reform among teachers in primary schools. Additionally, teacher educators (many of whom have not taught at the primary level) have benefited by getting a better understanding of the issues involved in primary school teaching. This approach has greatly improved the relationship between colleges of education and schools.

### **Early Perceptions of the BETD**

There has been some resistance to the BETD and the type of graduates it produces, although only two cohorts of the BETD program had been placed in the field by 1997. The reaction against the BETD is from some teacher educators who remain unconvinced of its merits and principals and teachers who do not fully understand the philosophy and practice of the BETD. According to the rector at one of the colleges, most principals are unfamiliar with the new educational ideas and practices. Those that are open to them embrace the BETD, while those who are more traditional feel the program is inferior. Some principals are reported to be waiting for the South African system to come back (college rector).

Despite pockets of resistance there is a sense among teacher educators, rectors, and NIED personnel that resistance is beginning to wane.

Because of the lack of qualified teachers in rural areas, BETD graduates are often required by principals to teach outside of their subject area and grade level specialization. Cases where a graduate trained for grades one through four in broad subject areas is assigned to teach grade eight mathematics because she is the highest trained teacher and only diploma holder at a school are not uncommon. This reflects poorly on the BETD program because these teachers often struggle to teach the subjects for which they are not adequately prepared. Due to the misplacement of new teachers out of their area of specialization, principals in some areas feel the new BETD teachers are not adequately trained.

Some positive effects of the BETD graduates on schools and education in general have been noted by teacher educators, rectors, and the evaluation team that looked at thirty BETD teachers in the field in 1996. Murangi and Andersson (1997) report that BETD teacher presented positive attitudes toward learners, teaching approaches, professional behavior, and content knowledge that could be seen as fundamentally learner-centered. BETD teachers said that good teachers valued the learners, their contributions, and participation; that the learners should be the point of departure for all good teaching; and that good professional behavior of teachers is characterized by preparation, punctuality, cooperation, dedication, and creativity. BETD teachers also acknowledge the need to be well prepared in their subject area to be good teachers, and that they should be willing to search for and develop their knowledge in various areas. The demand for BETD teachers among principals is high in most areas, particularly in the north of the country where there is a greater demand for qualified teachers.

These early perceptions of the BETD are indicators of its problems and potential. This teacher education program for post-apartheid independent Namibia has its foundation in an ideology of democracy, antiracism, and community building. The indications from teachers colleges, schools, and new graduates of the BETD program are that the program is making major contributions toward these ideals.

### **The BRAC Experience— Bangladesh**

It can be difficult to isolate the teacher education component in a case study, because it may be integrated with other school and system activities. This integration is strongly advocated as the best means to support effective teaching and to raise student achievement. This case study describes teacher education within the findings of the overall BRAC primary education program.

Information about the overall program elements, issues to consider for program improvement, and implications of the BRAC model are



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excerpted from *Primary Education For All: Learning from the BRAC Experience—The Executive Summary* (Ahmed, Chabbott, Joshi, and Pande 1993: 4-13). More specific information about teachers and their training, management, and supervision are excerpted from *Involving Communities: Participation in the Delivery of Education Programs* (Rugh and Bossert 1998: 63-65).

### Overall Program Elements

BRAC's Non Formal Primary Education (NFPE) program is by far the largest single non-governmental primary education program in Bangladesh. Around ten years old, it is one of the more promising non-formal education programs. More than 90 percent of the children who start BRAC schools graduate, and a large proportion of the NFPE program graduates are admitted into Class IV or higher of the Government school system.

BRAC supports two types of schools: three-year NFPE schools for eight to ten-year-olds who have never attended primary school; and two-year Kishor-Kishori (KK) schools for 11 to 16-year-olds who have dropped out of primary school and are unlikely to return.

The NFPE program has the same elements as more traditional educational programs: students, teachers, parents, schedules, an instructional site, an instructional approach, and a specified curriculum. The composition of these elements, however, is what makes the NFPE program distinctive. The NFPE program consists of the following:

- **Students:** Each school has thirty children, 60 to 70 percent of whom are rural girls living within a two-kilometer radius of the school. For the most part, students come from relatively disadvantaged homes. Their families generally are landless or own only their homesteads, and the family members survive on less than US\$70 per capita annually.
- **Teachers:** Teachers are generally married adults, 60 to 70 percent of whom are women, who have completed nine or more years of education and live within easy walking distance of the school. These teachers are hired on a temporary, part-time basis and are paid modest wages. There is one teacher for thirty students. Teacher training includes fifteen days of initial training at a residential BRAC training center and one or two-day refresher training sessions conducted each month by BRAC staff at a BRAC office near the teacher's school. Weekly visits from BRAC field workers provide teachers with regular feedback.
- **Parents:** The parents of most BRAC school students are illiterate and are usually the most socioeconomically disadvantaged in their



villages. Parents make no monetary contribution to the school apart from replacing broken slate boards and worn mats; BRAC provides all student and teacher supplies. Parents are expected to support the program in other ways, however. Prior to a new school opening, parents and BRAC staff meet several times, and parents must pledge to attend monthly parent meetings and to send their children to school each day.

- ***Schedule:*** The NFPE instructional program is presented in three-year cycles. The school is in session for about 3 hours a day, 6 days per week, 268 days per year at a time of day selected by the parents. The group of thirty students enrolled at the beginning of the program advances together. At the end of the program, the school begins another three-year cycle (if there are enough eligible children in the community).
- ***Instructional Site:*** Instruction is provided in one-room houses and storerooms rented for just three hours per day. These rooms generally have bamboo and mud walls, a packed earth floor, a tin roof, and a blackboard. The children sit on the floor on bamboo mats and hold slate boards on their knees. The teacher has a stool and a metal trunk that doubles as a desk and supply cabinet.
- ***Instructional Approach:*** Although the pedagogical approach in BRAC schools is intended to be student-centered and the curriculum approach activity-based, more traditional methods tend to dominate. Group lectures are generally followed by individual assignments that require minimal analysis by students. There is little opportunity for discussion.
- ***Curriculum:*** The curriculum for both NFPE and KK schools, consisting of Bangla, social science, and mathematics, has been developed and revised several times by BRAC. The material covered is roughly equivalent to Classes I-III in the formal school system. Since the formal school system requires English, the NFPE schools include English in their curriculum during the third year so that children who want to matriculate to formal schools after three years are well prepared.

### Teachers

Teachers are selected from educated members of the community by BRAC field staff with the help of parents. The candidates must have nine or more years of schooling. Preference is given to women, and as a result, by early 1996, 97 percent of BRAC teachers were women compared to 25 percent in government schools. They are selected on the basis of being articulate, committed, and married. (BRAC's experience indicates that highly qualified—by rural standards—unmarried female candidates are likely to marry soon and move to their husbands' villages, thus creating an interruption in the three-year relationship



between teachers and students). BRAC has had about an 8 percent per year teacher dropout rate. If a teacher drops out, a colleague from a nearby school will substitute until a new teacher is recruited and trained. In 1995, 9,187 new teachers were recruited, 2,002 dropped out, and 32,131 were still present in the system.

Teachers continue with the same class of students for the three-year cycle. They work part time for three hours a day, but if they complete one three-year cycle and prove themselves competent, they might be able to teach in two different schools in the morning and afternoon. They are paid a small salary (twice that of an agricultural worker) and allowed twelve days of leave each year; if they are absent for longer periods of time, money is deducted from their salaries to pay a substitute. For unexpected absences, parents will sit in for the teacher. Overall, compared with the formal primary system, BRAC teachers have fewer students (30 to 33, compared with 60 to 66 in government schools), teach fewer subjects, address fewer objectives, and provide 500 more hours per year of engaged instructional time than does the conventional system.

### **Training/Teaching**

Since its inception, BRAC's training and instructional methods and materials have changed several times, as it became apparent that more effective approaches were needed. The teacher now receives fifteen days of basic training at a BRAC training center, followed at the beginning of each year, and regular refresher training one day a month. The main aim is to give teachers practical training in student-centered learning and methodologies they can use in the classroom. The training emphasizes methods that produce learning for comprehension and not memorization. Part of the training is on building close relationships with parents.

The monthly refresher training is conducted in a nearby BRAC office to accommodate teachers who cannot stay overnight outside their homes. It generally consists of a discussion of teachers' problems, role-play, and the giving and receiving of feedback. In addition, BRAC staff visit teachers at their schools twice a month to provide ongoing training.

The basis for core training is a manual that covers child development, lesson planning, and child-centered learning approaches. A case analysis of the BRAC model suggested, however, that teachers who have spent nine years or more using memorization and recall methods are difficult to retrain in such a short time. Recently BRAC has developed new textbooks that are more conducive to child-centered approaches.

Though considerable progress has been made in improving teaching methods, instruction often still follows a fairly standard pattern. The teacher presents a lesson and asks if the children understand. The students' chorus respond, and she individually corrects them as she calls on each in turn. The rest of the students wait until it is time to be called. Later she walks around the class correcting the children's individual seatwork.

An assessment of BRAC in 1995 noted that the training of teachers is brief but strongly supported by refresher training spread out over a lengthy period. The one criticism was a tendency to emphasize future class work without fully analyzing teachers' experience with previous work. One of the ways BRAC is addressing this problem is through its Audiovisual Unit, which, since 1994, has been developing training videos to demonstrate new methodologies. The videos are used by teachers to analyze learning situations.

### **Management and Supervision**

BRAC's management philosophy is based on a decentralized model where the process of implementation and technical competence are considered essential to success. Initiatives are field-oriented and flexible and adjust to specific contexts. Experience is built in, in the form of tested procedures, to increase the likelihood of specific results. Staff visit the schools frequently to monitor what goes on and to adjust the program accordingly. Logistics are important to provide needed resources and administrative support when they are needed. Time is regularly scheduled for planning short-term activities and long-term sustainability.

The overall responsibility for the NFPE program—its policies, management, liaising with other programs and donors, evaluation, and assessment—lies with the executive director, while direct management and supervision are accomplished through the central office of the director of NFPE and his/her staff. There are five support units to support the work: Training, Monitoring, Field Operations, Material Development, and Logistics.

In 1992, NFPE's Monitoring Unit consisted of five staff members (later increased to fifteen) who conduct random checks of attendance, school facilities, student achievement, discipline, student participation, and teacher evaluation. The director, regional managers, and individual field offices are informed of the findings and adjustments are made to improve programs. The Unit follows up on these changes, whether in practices, curricula, or new materials, using indicators developed by the director, an education specialist, and the monitors themselves. The Unit

also assesses other aspects of the program, including parents' meetings, student's knowledge, retention, graduates, and school structure. A 1995 assessment observed that BRAC's monitoring is strict and meticulous and creates a culture of responsibility at the field level. However, it tends to focus on numbers, e.g., tracing staff members in time and space, rather than helping children improve their cognitive development (Boeren, Latif, and Stromquist 1995: iv).

By mid-1995, BRAC's full time NFPE field staff consisted of 6 regional managers (RMs), 40 area education managers (AEMs), 205 Teams-in-Charge, 417 program officers (POs), 1,138 program assistants (PAs), and more than 32,000 teachers, who were considered temporary project staff (Boeren, Latif, and Stromquist 1995:13).

In the local community, a school is run by a school management committee. The critical link between BRAC and the community is the PO, who usually has a university or graduate degree. POs are given three days of preservice training, twelve days of teachers' basic training in the first few months, a twelve-day operation management course, a twelve-day training-of-trainers course, and a six-day gender awareness and analysis course. A manual serves as reference for their activities. POs are responsible for from fifteen to twenty sites where their work falls into three stages: 1) surveying sites for new schools; 2) starting new schools; and 3) supporting ongoing schools. They are provided with specific instructions for implementing each of these stages.

The POs normally visit each school two times a month to check a list of fifty qualitative and quantitative indicators. They review teachers' obligatory lesson plans, observe instruction, and monitor student attendance. Because of lack of experience with instructional pedagogies and the press of other administrative responsibilities, however, they are not always able to provide the kind of support for instructional quality that BRAC would like. They also meet weekly with school committees, facilitate the delivery of supplies, and teach monthly teacher refresher courses. They are encouraged to make use of informal meetings with community members to develop cordial relations.

The POs tend to work long hours under difficult conditions, and more than half leave within the first year. Those who remain are eligible for promotion. All mid-level managers are recruited this way. In 1992 BRAC tested a program where paraprofessional teacher-supervisors from local villages were used to extend the reach of the PO. One PO would supervise three PAs, who would each be responsible for fifteen to seventeen schools. By 1996 this system was regularized and PAs were given nineteen days of preservice training, twelve days of

inservice training, and a six day training-of-trainers course. The PAs and POs are supervised and trained in teams-in-charge who are responsible for eighty schools. The structure overall is supervised by the Monitoring Unit.

BRAC has made a special effort to recruit female PAs and POs, and has adapted some of its procedures to accommodate them. Currently BRAC assigns them to offices nearer their homes, assigns several to a field office, and makes special provision for their transport.

### **Issues to Consider for NFPE Program Improvement**

Some issues related to improving the efficiency and effectiveness of the existing NFPE program are as follows:

- ***Classroom Environment:*** BRAC classrooms are more child-centered than those of Bangladeshi formal schools, but limited classroom space restricts the range of child-centered activities. Making schools more child-centered would require the use of larger rooms, which might require higher rental fees and in turn might increase the per-child costs of the program.
- ***Curriculum:*** Most NFPE program graduates who enter Class IV in the formal system drop out before they complete Class V. It is difficult to develop a two-or-three year curriculum that prepares some children to enter the Government educational system and others to function effectively in rural Bangladesh. A more diverse curriculum would affect a variety of program elements, including the instructional schedule and teacher training.
- ***The Pedagogic Approach:*** The need to rely on teachers with limited formal education and no professional training, the limited hours in a school day, and the bare-bones provisions for physical facilities and learning materials have led to a simplified curricular content and a structured and well defined sequence of classroom activities. While this approach has been successful to a degree, there is room to improve classroom practices, use of instructional time, and the creativity and spontaneity of teachers and students. Master teachers, more supportive materials, and innovative training strategies might increase instructional effectiveness.
- ***Teacher Supervision:*** BRAC's decentralized management model provides effective administrative and logistical support for the NFPE program, but very little technical expertise in education at the school level.
- ***Gender Equity in Program Management:*** Although the NFPE program targets female students, recruits female teachers, and is supported primarily by mothers, most management and coordinating positions are held by men. To a large extent, this lack of women in management and decision-making positions reflects

hiring practices that have inadvertently excluded women. Initial steps have been taken to address this issue.

#### **Implications of the BRAC Model**

***Implications for the Global Community:*** Internationally, BRAC serves as an object lesson on the potential of the non-governmental sector. It also illustrates how a combination of targeting, school design, flexibility, and follow through can increase girls' primary school participation rates dramatically. Several of the specific factors that have shaped BRAC's approach to the NFPE program in Bangladesh—such as high rural population density and high levels of rural, educated people who are underemployed or unemployed—are not found in many developing countries. Nonetheless, the institutional environment in which BRAC operates is common in many less developed countries. This institutional environment includes organizations that implement development activities in Bangladesh and comprises international donors, Bangladeshi Government agencies, and international and national non-government organizations, plus all their norms, rules, regulations, and conventions. It is characterized by three elements:

- Heavy reliance on foreign donor funds, provided in the form of short-term “projects” targeted at long-term problems, such as establishing universal primary education;
- National ministries of education and formal primary education systems that have the formal mandate to develop the primary education system but lack the human, financial, and administrative resources and/or the bureaucratic flexibility to do so; and
- NGOs that have greater flexibility than government bureaucracies and often are able to reach specific target groups more effectively but serve only a small proportion of the population.

#### **Lessons Learned from the BRAC Model**

Following are selected implications of BRAC's work, not only in the conditions particular to Bangladesh, but also in the institutional environment common to many parts of the world.

- *Part-time paraprofessionals can make good teachers for the lower grades of primary school, provided they are adequately trained, supplied with a very structured curriculum and, most importantly, adequately supervised.* BRAC's model for teachers is not that of part-time professionals, but rather part-time paraprofessionals with continuous training and intense supervision. Low-cost paraprofessional teachers need more higher-cost supervision and guidance than do high-cost professionals. Paraprofessional teachers also need detailed teacher versions of textbooks to guide them through the lessons.
- *Primary school participation can be improved, even with traditionally hard-to-reach populations.* The BRAC case supports the conclusions

of other studies that suggest that primary school enrollment is strongly affected by cost and safety, persistence is strongly affected by school quality and parental as well as teacher followup, and timely completion is strongly affected by continuous assessment and followup.

- *A basic, no frills program that is fully implemented is better than a more progressive one that is not.* BRAC school students are scoring as well on several standardized achievement tests as Government students who have been exposed to a more elaborate curriculum.
- *The features needed to increase girls' access to and persistence in primary schools need not make schools more expensive.* BRAC adopted features for their low-cost properties—small schools with small catchment areas and female paraprofessional teachers hired from within those catchment areas—are also attractive to girls. It is usually easier, however, to plan these features into a new school system than to introduce them into an existing one.
- *NFPE schools do not appear to be handicapped by a lack of permanent school buildings.* Rented rooms provide adequate space at minimal cost for the small group format and basic instruction that BRAC schools provide. Renting school rooms on a part-time basis enables BRAC schools to start quickly. When one three-year cycle is finished, the second cycle can either be held in the same location or moved to one closer to the new students. Rental costs appear lower than Government costs for building and maintaining permanent school buildings.
- *Securing significant participation by illiterate parents requires not just appropriate participation structures but also ongoing individual follow-up.* In addition to convening monthly parent meetings, BRAC field staff follow up absentee students with home visits, and the staff are encouraged to develop contacts and rapport with individual parents and parents' groups. This individual contact is a significant contributing factor to high attendance rates at school and parent meetings.
- *Nonformal programs for older girls must balance preparation for participation in the Government school system and participation in the work force.* Given the high levels of private funds expected—if not required—to remain in Government schools, BRAC is not convinced that the majority of its students will be able to complete Class IV and V. Moreover, many BRAC students are far beyond primary school age, and will not persist in Class IV in the Government system. BRAC is therefore discussing ways to make the curriculum even more relevant for girls who are not likely to finish primary school and who will need to create their own employment opportunities as lack of access to land continues to drive a larger proportion of the rural population out of agriculture.



### Lessons Learned About Management

- *Managerial expertise may be more important than technical expertise in ensuring the rapid expansion of a basic education program of adequate quality.* The NFPE program's success to date is related less to the rigor of BRAC's original technical design and more to its willingness to "learn as it goes," and its determination to fully implement its no-frills approach.
- *A key element of managerial expertise is the ability to recognize the type of services necessary to support any particular programs and to plan and budget for those services.* BRAC's previous experience in setting up field offices, ensuring timely delivery of project materials to remote sites, developing staff training materials, and providing other support services played a critical role in developing and expanding the NFPE program.
- *In addition to a pool of experienced, well trained, support service managers and senior executives, the start-up of a new project can benefit enormously from the availability of experienced, well trained, mid-level managers who can be seconded from older successful projects to work at the field level.* BRAC staffed its NFPE program in the early days with experienced field managers from its other rural development and credit programs. In addition, BRAC has routinely allocated significant resources for in-country management training for all of its managers and for overseas training at places like the Asian Institute of Management for some of its staff.
- *Donors interested in funding large-scale NGO projects should be prepared to cover the full cost of the support services that each project requires, e.g., motor pool, printing, staff training, etc.* The NFPE program includes adequate allocations for staff, training, and logistical support for both technical and managerial functions.
- *In the national EFA community, depending on economies of scale, it may be economical for certain agencies to specialize in specific support services—such as textbook production or management training—and for other agencies to contract with them for those services.* Because of the size of BRAC's overall organization, economies of scale make it possible for BRAC to provide most of its own support services and even to provide some services—like training at its Center for Development Management—to other NGOs.
- *The benefits of economies of scale in either technical delivery or support systems need to be weighed carefully against the dangers of a monolithic approach.* BRAC's model has created standards against which all other NGO programs are currently being measured. There is some pressure for NGOs that are interested in expanding their primary educational programs to adopt the BRAC model. This pressure comes from both the NGOs themselves, because the models that



they may have been using to date are not clearly better than the BRAC model, and from the donors, who want to fund the “best” model.

- *NGOs that provide basic education programs do not have to be restricted to limited funding sources.* In the process of seeking large-scale funding, national NGOs may be able to retain some independence—including the opportunity to experiment with alternative models—in at least two ways: by developing profit-making enterprises that can provide pilot funding for new activities and “bridge funding” during periods of rapid expansion; and by increasing the number of donors that fund their projects. BRAC has used both of these methods successfully.
- *National NGOs can reduce the amount of administrative and coordination time required for multiple donors by forming donor consortia, the members of which accept a single set of standardized reports and evaluations.* BRAC already has a donor consortium for its seven-year-old rural development program and is currently forming a new one for its NFPE program.
- *When one project initially succeeds in delivering some social service to a high priority, difficult-to-reach target group, that project may come to be seen as a potential vehicle for a myriad of other services.* The rapid expansion of BRAC’s NFPE program to date is in part a function of its focus on a single purpose: providing basic education to children left out of the Government system. Proposals to add services to existing successful projects in BRAC are evaluated carefully on a case-by-case basis. For example, offers from donors to add more components, like school feeding programs, must be viewed very critically.
- *Foreign donors are keenly interested in the impact of projects on girls and women.* BRAC has found that it may be easier to design projects targeted at girls than to integrate women fully into the implementation and management of those projects. BRAC is still working on increasing the number of women in mid and senior-level management positions in the NFPE program.



### 3. Lessons Learned About Initial Teacher Preparation Programs

*At the center of improving teacher performance there needs to be an attitude of ongoing professional development. It is time to move away from the traditional idea that there is an initial compartment called “preservice” training followed later by some other compartmental training programs that periodically occur called “inservice” training. Teacher development is a process, not an event.*

This study takes the view that teacher development means comprehensive growth and support. From the time teachers begin any initial preparation and/or teaching, provision needs to be made for ongoing development of knowledge of subject matter; concrete skills to teach, observe, assess, and reflect; incentives; and career growth. There also needs to be a linkage with other teachers and supervisors to help solve problems and to support each other through discussion, modeling, and coaching, and an involvement with other aspects of school and educational change. The isolation and lack of communication between all players need to be reduced. Ministries of education and regional office staff have a responsibility to provide sufficient teaching and learning materials to support the curriculum, ensure adequate facilities, and provide ongoing support for the issues that teachers face.

The appropriate length of initial preparation courses and their organization is debatable. The reality is that there are a variety of ways to prepare and support teachers in a variety of environments. Just as there is no single type of effective teacher, but there are common elements associated with successful teachers, there is no single type of effective initial preparation course, but there are common elements that should be discussed and incorporated where appropriate in design and implementation.

This chapter draws upon material from the case studies in the previous and following chapters as well as additional research literature to present key lessons learned about initial teacher preparation programs. Some of the work presented overlaps topics about inservice teacher education because they are closely integrated in effective teacher development programs. Topics to be discussed in this chapter include:

- The different lesson skills typically faced by beginner and more experienced teachers;
- Alternative choices of initial teacher programs;
- Elements of successful traditional formal teacher preparation programs;
- The move to general education programs;
- Processes and incentives for the recruitment and retention of an adequate teacher supply;
- Teacher educators;



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- Induction programs; and
- Accreditation standards for teacher education

### **Beginning Teacher to More Experienced Teacher—What Are the Issues Typically Faced?**

In the continuum of learning, questions such as the following are often asked:

- What do new teachers need to learn first?
- What things do teachers typically struggle with as they try to learn their profession?
- What should be the minimum expectations for a new teacher?

There is no single answer to these questions. However, the questions have strong implications for what should be covered in initial teacher preparation programs, and for ongoing staff development activities. There are also strong implications for creating realistic expectations for performance appraisals. Table 1 details some of the observations made of both beginning and more experienced teachers of their delivery of lessons.

Based on these and other observations, it is clear that beginning teachers ideally need initial preparation in the subject matter they will teach, some basic strategies for how to teach that subject matter, verbal competency in an appropriate language of instruction, some instructional materials in an appropriate language for learning, knowledge of how to use these materials, some basic classroom skills concerning managing students and the learning environment, and basic skills in observation and reflection. While some information might be provided through lectures or seminars in a formal initial preparation program, most of these practical skills are best learned through on-the-job practice with coaching.

### **Alternative Choices for Initial Teacher Preparation**

There is much debate on the importance of providing longer teacher education programs, with more supervised teaching practice time in schools, more learning about various sociological and philosophical underpinnings of teacher education, more time learning alternative pedagogy for a range of subjects that need to be taught, and more time mastering basic skills before officially beginning to teach. However, this study is trying to address the reality of many developing country systems where the shortage of teachers and funds for training are desperately short. Planners should take heart that there *are* a range of programs that might be considered under varying circumstances.

**Table 1: Lesson skills that tend to be found in education systems in mature stages of development: comparing beginning and experienced teachers****Lesson preparation****It is desirable that teachers be able to**

- comprehend content and material
- critique content, materials, and teaching methods
- prepare plans, materials, and physical space

**Beginning teachers**

- appear to understand the need for creating lessons that are appropriate for the subject matter and students, but seem to accomplish this task only superficially
- often do not know their subject matter in a way that allows them to explain it to students
- have difficulty seeing the pedagogical implications of student differences, even though they may be able to detect overt student differences—often have difficulty tailoring materials and instruction to individual students

**Experienced teachers**

- create lessons that enable students to connect what they know to new information
- know their subject matter in a way that enables them to explain this to students
- know their students in ways that allow them to tailor the subject matter, curricular materials, and instructional activities

**Teacher–student interaction****It is desirable that teachers be able to**

- implement and adjust plans during instruction
- organize and monitor students, time, and materials during instruction
- evaluate student learning

**Beginning teachers**

- may have difficulty creating learning-filled classrooms because of difficulties in establishing rules and routines
- may have difficulty executing tasks listed below (under fully competent teachers) due to the lack of well developed instructional routines and a poor understanding of content-specific pedagogy

**Experienced teachers**

- create classrooms in which students want to learn
- develop empathy, rapport, and personal interactions with students
- maximize time spent actively engaged in worthwhile academic activities and minimize time spent waiting for activities to get started, making transitions between activities, sitting with nothing to do, or engaging in misconduct
- find ways to establish and maintain rules and routines that are fair and appropriate to students
- arrange desks, curricular materials, and grouping of students, etc. in ways that are conducive to learning
- use appropriate methods to represent and present subject matter, ranging from teacher-directed to student-directed strategies, assess student needs, and adapt instruction to meet these needs
- focus attention on the relevant and important aspects of the instructional materials and activities
- communicate clear expectations to students
- relate new learning to students' previous learning and experiences
- model learning to develop students' own cognitive strategies
- provide opportunities for students to interact with the content, e.g., answering factual and integrative questions, taking selective notes, and creating analogies
- maintain consistent accountability procedures for all students to progress with interventions to improve student learning

**After-lesson tasks****It is desirable that teachers be able to**

- reflect on one's own actions and students' responses in order to improve teaching
- continue professional development and interact with colleagues

**Beginning teachers**

- reflect on their practice, but with less focus than experienced teachers
- everything seems important and worthy of comment
- may have difficulty zeroing in on what is instructionally important for reflection because they have not yet refined the ability to take in enormous quantities of information gathered during classroom experiences, or the questions used to elicit reflective answers are inappropriate

**Experienced Teachers**

- evaluate their own teaching effectiveness by reflecting on their own actions and student responses in order to improve their practice

Source: unknown

Initial preparation of teachers varies greatly across countries. Where programs do exist, they have worked well when they have ranged from fifteen days as in the BRAC schools in Bangladesh, twenty-five days in the rural community schools in Egypt, two years in Botswana, three years in Namibia, to the five-year programs found in some U.S. institutions. Success depends on how the courses are structured and what support accompanies them. Programs that have shorter initial training tend to need more concentrated on-the-job followup; however, all programs need ongoing job support. Where there is an issue with getting females trained in restricted social regions, mobile teacher training has proved helpful (see the case study on Balochistan in Chapter Four). Well designed distance education programs can provide training to teachers, especially to large numbers of teachers. The point is that a range of alternative initial programs that might match local demands and conditions is available.

The experiences of BRAC (see Chapter Two), the rural community schools in Egypt, and the mobile teacher training program in Pakistan (see Chapter Four) offer ideas for addressing particular needs for getting more teachers quickly into schools in particular social contexts. All these projects demonstrated flexibility in selecting local people for training, taking them where they are at in experience, providing basic preparation, providing strong on-the-job support, and encouraging teachers to meet and work together to solve classroom problems all contribute to their success.

One serious omission, however, is often the accreditation. Accreditation ideally should accompany nontraditional training and continue over the following years. In order to provide equity between the status of teachers as well as develop uniform performance standards, accreditation needs to match the ongoing training undertaken by *all* teachers. A disservice is done to *both* teachers and the teaching profession if *all* teachers do not have the opportunity to gain equal professional qualifications, no matter what route is taken to attain them.

The more typical categories that initial teacher preparation programs fall into, those at least that are considered formal and traditional “preservice” programs, as noted by Darling-Hammond and Cobb 1995, tend to be:

- *Certificate or degree programs housed in normal colleges, normal schools, and colleges of education established solely for the purpose of training teachers.* These programs usually specialize in training primary school teachers and emphasize pedagogical more than subject area preparation. These programs tend to be two to four year programs



### Box 1: The Rural Community Schools in Upper Egypt

According to Hartwell (1995), this Ministry of Education and UNICEF-supported program selects two women from the vicinity of the community school to serve as facilitators (rather than “teachers”) for each class. The women are usually secondary or technical school graduates, not university-trained teachers. Selection is based on an initial personality test in which a woman’s aptitude for teaching is assessed based on her ability to work with children, her disposition toward teaching, and her acceptability and openness to the community.

Central to the project’s success is the inservice training and support program that is still developing. Staff of the faculties of education from the universities in Assuit and Qena, UNICEF’s local NGO field workers and supervisors, and technical assistance provided by UNICEF are responsible for the training and support that is so essential.

The initial training the women receive comprises twenty-five days over a three month period, including an initial eight to ten days of team building and enhancing the women’s confidence in oral communication. This training is provided by the faculties of education staff in the elected governorates. Sessions cover developing multigrade teaching strategies and making of teaching resources, child-centered methods, and building self-confidence. Since two facilitators work together in the same classroom, the training also helps to establish the idea of continually discussing issues, developing shared materials, and consulting each other on ideas to improve the children’s learning. The practice of cooperative teaching needs further work rather than one teacher at a time doing all the teaching.

Towards the end of this initial training, participants spend two weeks to one month in structured classroom observation. Once this initial training is completed, facilitators are supported in their ongoing work through ongoing training at the local level. This training is very structured, consisting of weekly staff meetings to share new instructional ideas, resources, and methods, and to discuss how to deal with problems that arise, particularly those in the classroom. Visits and internships in existing community schools, observations and interaction with children, and regular practice of effective teaching methods and feedback characterize the training. Practices for discussion are focused on child-centered, action-based activities, and the teacher as a learning facilitator. Self and peer evaluation of teaching are strongly encouraged. The facilitators are paid by the Ministry of Education for the nine months that schools are in session. During the summer months, the schools continue to function and inservice training continues. Costs for these three months are covered by NGO contributions from an inservice budget line. The NGO also provides field workers and supervisors who supplement the work of the Ministry by visiting teachers to provide support and guidance and to deliver school supplies. One of the issues that still needs to be addressed is how to integrate these facilitators into the larger educational systems of the Ministry, where their teacher expertise will be recognized and accredited.

that lead to a certificate or diploma in teaching, (such as the case of Botswana; see Chapter Two).

- *Degree programs housed at general, multipurpose universities.* These programs usually emphasize subject matter preparation more than pedagogical preparation. These are generally three or four-year programs leading to a bachelor's degree, with the teaching preparation portion lasting one to two years (such as the case of Namibia).
- *Master's degree and/or fifth year programs.* These programs, open to candidates who have completed a bachelor's degree, lead to a master's degree or postgraduate diploma in education (such as the M.Ed. program in Botswana). The duration of these programs ranges from one to two years beyond the bachelor's degree.

### Elements of successful traditional formal teacher preparation programs

#### The Experience of Botswana

The experience of Botswana highlights several key factors to be considered in an educational system that is still at a maturing stage of development. Because this program is part of an international donor-funded project, some of the "success" elements concerning donors are also noted.

#### ***The Training Program:***

- Recognized and responded to local needs
- Conducted an initial needs assessment
- Established clear project goals
- Linked both preservice and inservice teacher education programs
- Provided credible and quality diploma, certificate, B.A., and M.Ed. degrees in-country
- Provided sufficient incentives to attract and retain educators
- Carefully coordinated the evaluation and training of teacher training college personnel
- Identified potential leaders for training nationally or abroad
- Established regional inservice training centers
- Allowed broad participation in decisions
- Established national ownership of the project
- Replaced expatriates with qualified nationals over a carefully planned transition period
- Developed a fully functioning advisory team including long-term advisors
- Maintained long-term, in-depth commitment and flexibility by government and others
- Planned adequately long-term, sustained effort of five to ten years
- Maintained donor collaboration and confidence on all related components of the program

**The Experience of Some Industrialized Countries**

Where governments wish to maintain and improve their traditional formal programs for initial preparation of teachers, the following essential elements of coherent and successful teacher education programs have been identified by researchers such as Howey and Zimpher (1989), Grossman (1990), Doyle (1990), Feiman-Nemser (1990), Liston (1995), and Borko and Putnam (1996). In many ways the elements listed below are part of what constitutes essential components of good schools as well. While these tend to reflect the experience of resource-rich countries, we believe the lessons are worth discussing for any formal teacher education program:

***1. Shared Vision and Conceptual Framework for the Program***

- Make expectations clear, develop faculty collegiality, and ensure program renewal.
- Develop consensus about curriculum scope, sequence, integration, and articulation.
- Clarify what is valued in a teacher and what is expected of the prospective teacher.
- Acknowledge the realities of schools as places and the role that teachers play.
- Support an explicit coherent design for programmatic research and evaluation.
- Require goals that are clear and reasonable.

***2. Collaboration of Faculty and Students***

- Since collaboration is related to ownership, shared beliefs, and motivation, it is a good strategy to involve students to some degree in the design and implementation of the program and the work carried out in schools.
- Teacher educators who teach in field sites, work regularly in schools, or have had recent and relevant practical experience in schools can foster a sense of collegiality and collaboration among students and faculty.
- Having access to faculty, being assigned smaller classes to promote more personal interactions, and working with faculty with site visits, etc. helps to show personal caring, an important part of any teacher–student relationship.
- Many faculty resist the above suggestions because of their already heavy teaching loads and the need they have to protect their time to attend to their own research. Administrators need to address the work loads and reward systems in education departments if greater collaboration between faculty and students is to occur.

### ***3. A Coherent Conception of “Learning to Teach”***

- General pedagogical knowledge and beliefs include knowledge and learning skills about various strategies and arrangements for effective classroom management; instructional strategies for conducting lessons and creating learning environments; and knowledge about how learners learn and how that learning can be fostered by teaching.
- Subject matter knowledge and beliefs include the facts, terms, and concepts of a discipline; the organizing ideas and ways of thinking and arguing on the topic, and knowledge growth within the discipline to understand the best ways to teach the subject.
- Professional studies are included in the program, e.g., courses related to the profession of teaching such as educational psychology, history, sociology, and philosophy.
- Supervised teaching practice is a key focus of the program.

### ***4. A Rigorous and Academically Challenging Program***

- Teacher education has suffered from a widespread perception that no special knowledge base is required for teaching, that anyone can teach as long as they understand the mechanics of chalkboard use. Lax admission standards have reinforced these misconceptions (Fullan 1995; Feiman-Nemser 1990).
- Teacher education programs must have a strong emphasis on academic rigor and provide challenging intellectual experiences for student teachers.

### ***5. A Curriculum Structure that is Integrated, Development-Oriented, and Balanced***

- Curricula that are developmental start from observation and move to practice. They also move from technical to multidimensional approaches to teaching. (This is an area often overlooked in the planning process of teacher education programs. Sophisticated designs are planned with expectations that are often too high. Multidimensional approaches to learning are good, but beginning teachers need to master the basic mechanisms first.)
- There is sufficient time and discussion of concepts learned on campus and in school experiences to be synthesized and integrated. Key concepts need to be revisited over time.
- Teacher educators model good teaching practices rather than talk about them.
- There is an emphasis on mastery and depth of subject matter.

### ***6. Presence of Student Cohort Groups***

- Just as teachers need other teachers with whom to discuss issues, developing cohort groups helps reinforce students' commitments

to teaching as a career as well as provide academic and personal support throughout the course.

- Faculty tend to feel greater accountability to a cohort than to individual students who come together for certain classes only.

### ***7. Adequate Curriculum Materials, Facilities, and Resources***

- Efforts are made to make available up-to-date materials and facilities including curriculum materials, instructional resources, information, and communication technologies.
- Adequate library resources are critical.
- When national education reforms concern curriculum materials, these need to be got to the teacher training facilities ahead of time so they can be quickly integrated into programs.

### ***8. Research and Theory-Based Programs***

- Successful programs are based on sound research.
- Faculty need to be active in classroom and school research to be current with issues and changing demands on teachers.
- Action research is a useful tool in assisting student teachers look at the complexities of teaching and learning.

### ***9. Systematic and Effective Program Evaluation***

- Evaluation results must lead to improved programs and practice.

### ***10. Reflective Inquiry***

- Reflection needs to go beyond the technical critiques and beyond personal meaning-making.
- Reflective inquiry entails thinking carefully and imaginatively about why things happen as they do in schools, and what alternatives might be created.

## **The Move to General Education Programs**

The move towards a general education degree for primary teachers has opened up opportunities for teacher trainees throughout the world who start off with the intention of becoming teachers but then wish to enter other professions. The effects in the United States have not been severe, due to a surplus of qualified teachers, but there have been rather severe consequences in many developing nations where both graduates of secondary and superior level teacher training programs use the often “free” education in teacher training as a stepping stone to higher paying or more prestigious occupations. The move to general education programs is in part an attempt to give teaching a status comparable to other professions (Wolff et al. 1994).

While there has been a trend to train primary school teachers as generalists, prepared to teach in all content areas, some educational

systems such as those in Alberta, Canada and Chinese Taipei, require primary teachers to focus on a specific subject area. In Hong Kong, training primary school teachers must specialize in two subject areas (Darling-Hammond and Cobb 1995).

### **Recruitment and Retention of an Adequate Teacher Supply**

One of the key issues faced by educational planners is how to do the following tasks with few resources: a) recruit sufficient numbers of qualified and committed teachers into the profession, b) retain these teachers in the educational system, and c) raise the quality of their instructional practice. Findings from the research suggest that while the incentives often provided by education systems help to improve teachers' overall career satisfaction and might help stimulate recruitment and encourage retention, they do not typically improve the quality of teaching practices (Kemmerer 1990; Chapman, Snyder, and Burchfield 1993). Incentive systems that tie direct compensation to the teaching skills and behavior are potentially powerful to change instructional practices, but are also controversial. The following sections explore selection processes and incentives.

#### **Selection of Candidates for Initial Preparation Programs**

Most national systems of education use more than one criterion for selection of candidates into teacher education programs. Common processes include:

- Successful completion of the minimum required period of schooling. Such a requirement is not always expected of primary teacher candidates in some developing countries where teacher education programs may still be part of the upper secondary education system;
- Sitting for an entrance examination that might consist of scholastic achievement and general knowledge;
- Personal interviews to look for such characteristics as communication skills, language proficiency, commitment to teaching, prior preparation, and personality; and
- Submission of letters of reference for character and academic checks.

Student intake into teacher training institutions is usually determined by government bodies in collaboration with teacher education programs. In some APEC countries, the number of candidates admitted is based on the demand for teachers or the funding available to support their time in the program. In the United States and Canada, program size depends on the number of interested candidates meeting entry requirements and the admission policies of individual institutions. In many Canadian provinces, faculties of education have intake quotas for specific areas of concentration (Darling-Hammond and Cobb 1995).



**Selection of Candidates for Teaching Positions**

While there is a national standard in many regions that candidates are usually expected to meet, the demand for teachers in many countries is so great that standards are not always maintained. Even in higher income countries, the difficulties of recruiting sufficient teachers in particular subject areas and in certain geographical locations is often severe.

The importance of having command of the subject matter knowledge, the skills to communicate effectively and create and sustain a learning environment, the language proficiency, and the commitment to teaching are identified frequently in the research literature as ideal criteria for the selection of candidates for teaching positions. In desperate circumstances, a willingness to learn and a commitment to teaching are essential; the subject matter knowledge and appropriate skills can be developed through on-the-job support and inservice programs.

For *attracting appropriate candidates* when there are teacher shortages, some suggestions that have monetary implications (adapted from Canadian Education Association Report 1992; and Manitoba Department of Education and Training 1991) are:

- Nationally widen access through the introduction of more flexible training courses, especially part-time training opportunities and shortened teaching certificate/degree courses. The “licensed” and the “articled” teacher schemes in the United Kingdom are growing sources of new entrants. Such flexibility is particularly attractive to mature entrants.
- Recruit atypical candidates, e.g., mature-age, change-of-career candidates.
- Assist local administrative levels to decide what staff are needed in which areas. Local levels are in a better position to determine local needs. An important part of this local placement is ongoing support both from the district level and centralized system.
- Provide bursary payments for trainees in shortage subjects. While such payments have had an initial effect on recruitment it seems that such effects may not be long lasting.
- Promote teaching through regular national advertising and publicity campaigns competing directly with the efforts of graduate recruiters in other sectors.
- Locate, in some local directorates and individual schools, the introduction of more flexible working arrangements, including part-time jobs, job sharing, and career breaks. These would particularly benefit women teachers and might not only encourage ex-teachers to return, but could also have benefits in terms of retaining teachers currently in service.

- Retrain teachers to help reduce the problems of subject mismatch and hidden shortages.

### **Incentives**

Kemmerer (1990) defines the term “incentives” as all the direct and indirect benefits offered to teachers as intrinsic motivators. More specifically, he states that *direct monetary benefits* are the package of teacher salary, allowance, and fringe benefits; *indirect monetary benefits* are all other financial resources offered to teachers. These might include: i) professional support such as initial and ongoing training programs, teacher guides, textbooks, instructional supervision; and ii) personal support such as free or subsidized housing, food, or transportation. *Nonmonetary benefits* include professional status in the community, location of teaching position, recognition and approval by significant people associated with the teacher, etc.

What incentives make a difference to the retention and performance of teachers? Different incentives work for different people at different stages of their careers. It is important to look at each community of teachers and to find out what would make a difference for those individuals to improve their teaching as well as their career satisfaction. These incentives should be appropriate to the needs of the teachers, and be compatible with both the resources available as well as the expectations from teachers’ unions and other professional associations. Many countries provide incentives such as salary differentials, transportation funds, extra vacation time for traveling long distances, bicycles, or housing to encourage teachers to work in isolated rural areas. Research has not been able to document a clear connection between these incentives and student achievement, but such a relationship would be extremely difficult to isolate. However, logic would tell us that having a teacher regularly present in a rural classroom is considerably more beneficial to student achievement than having no teacher at all.

***Monetary Benefits:*** The issue of salary was raised in Chapter One, and ideas to attract teacher candidates (that have monetary implications) were already presented above.

However, for improving the instructional skills of teachers, some suggestions that have monetary implications are to provide:

- release time to observe and work with peers in one’s own school as well as in other schools or districts;
- release time for ongoing inservice programs;
- additional planning or preparation time for teachers; and
- institutional support for teachers, (induction programs, ongoing

support and guidance, rewards, providing instructional materials, providing orientation “programs” to the school/new region etc.) particularly in the first few years of teaching.

***Nonmonetary Benefits:*** Status is important to attract and retain prospective teachers to the profession, as well as the amount of support provided by local communities. As Lockheed and Verspoor (1991: 91) comment:

“Status” depends on how society and prospective teachers perceive the extrinsic compensation and conditions of the workplace, and the intrinsic rewards of professional accomplishments. Low status is often linked with low salaries, poor working conditions, and few opportunities for advancement and rewards. Therefore, the most able students are often attracted to other professions that will offer these attractive and needed incentives. The problem is further exacerbated, when governments, in an effort to meet huge undersupplies of teachers, lower entry requirements for training and appoint many untrained and uncertified teachers, thereby lowering the status and credibility of the profession further. Standards for admission to teacher training institutions need to be raised wherever possible help in raising the profession’s status.

***Job Professionalization:*** Associated with job status is teacher professionalization, an important issue in current educational debate. An increasing number of researchers have argued that improving schools and teaching performance requires professionalizing the job of teaching. Teacher professionalism begins with instructional competence and commitment and extends into a number of related issues dealing with the degree of decision-making autonomy and accountability. Therefore, initial steps in developing teacher professionalization should focus on helping teachers develop basic instructional competencies. Next steps should focus on providing opportunities to develop reflective skills and make decisions to change the classroom learning environment, followed by increasing levels of autonomy and accountability. Ingersoll (1995) found that schools with more faculty influence over decision-making had distinctly lower rates of turnover than those with less staff influence over decision-making. As a result, a host of reforms have been promoted that are designed to upgrade the working conditions of teachers, such as teacher empowerment initiatives, evaluation of performance, merit pay plans, career ladders, mentoring programs, and other professional development plans (Holmes Group 1986; Carnegie Forum 1986; Sergiovanni and Moore 1989; Darling-Hammond 1984; Rosenholtz 1989).

Other *nonmonetary*-related suggestions (Canadian Education Association Report 1992 and Manitoba Department of Education and Training 1991) to increase job satisfaction include:

- Make new and potential staff feel welcome and valued;
- Clearly convey the school district's expectations;
- Believe in and trust teachers;
- Recognize teachers' success by providing letters of commendation or appreciation for outstanding work or service;
- Develop a close positive relationship with the people responsible for recruiting new teachers;
- Develop positive and supportive staff relationships. By far the most important aspect of staff satisfaction is the question of relationships among staff themselves, between school board and staff, and between community and staff;
- Increase status through titles, e.g., master teacher, senior teacher, or mentor teacher;
- Provide opportunities for advancement; and
- Provide more time and energy on developing staff communications and interpersonal relations.

## Teacher Educators

Proxies such as advanced degrees, teaching ratings, and research and publication records give some indication of the caliber of individuals who are involved in teaching at the teacher education institutions. Whatever background experiences and qualifications teacher education staff come with, the quality of teaching in the program will be strengthened if staff:

- Have a clear concept of how adults and children learn best;
- Can impart subject pedagogies;
- Are active in classroom and school research to be current with issues and changing demands for teachers;
- Model good practices in their own teaching; and
- Take time to reflect with students about teaching practice in conjunction with school observations.

One of the few studies dealing with the issue of teacher education faculty in the developing world was conducted by Schiefelbein and Tedesco (1992). The study found that among education professors, a higher proportion were female, older, had a lower percentage of doctorates but a higher percentage of master's degrees, possessed degrees acquired nationally rather than internationally, and preferred teaching to research more than did professors in other disciplines. They concluded that education professors had lower status and training than their counterparts in other disciplines. There are some planners who argue that one solution would be to eliminate teacher education

departments, and have pedagogical components included within the subject disciplines. This is easier to do for secondary school teachers with their few subject specializations than FOR primary school teachers who must be prepared in a wide array of subjects with a strong basis in child development.

## Induction Programs

Induction programs that guide and support beginning teachers in their first year or two of teaching are essential to develop sound teaching practices as well as to retain teachers in the system. Some countries prefer school-based induction programs, while others such as Israel, have induction programs run by teacher colleges and the academic schools of education (IBE 1996). Some key guidelines for running induction programs, as summarized by Odell (1989) are presented here:

- Provide continuing assistance for beginning teachers to reduce the identified common problems that typically occur in the early stages of teaching.
- Support development of the knowledge and the skills needed by beginner teachers to be successful in their initial teaching position, and provide resources for instructional materials.
- Integrate beginning teachers into the social system of the school, the school district, and the community.
- Provide an opportunity for beginning teachers to analyze and reflect on their teaching.
- Accompany reflection time with coaching from veteran support teachers.
- Increase the positive attitudes of beginning teachers toward teaching.
- Provide incentives and compensation to those participating in the program, including the mentor teachers.
- Provide release time for observations of other teachers—coaching and planning is necessary for both mentors and beginning teachers.
- Waive formal appraisals and evaluations during the first year of teaching.

As reported by Darling-Hammond and Cobb (1995), interest and support is growing among APEC members for induction programs as they recognize the first years of teaching as critical for the development of effective skills and positive attitudes. APEC countries such as Hong Kong, the Peoples' Republic of China, the Republic of Korea, the United States, Canada, New Zealand, and Japan have or are developing induction programs, transition periods, and on-the-job support for beginning teachers. In Chinese Taipei, teacher candidates, prior to licensure, undertake a year-long internship following their course work. In mainland China, responsibility for training new teachers

**Box 2: Teacher Educators*****Africa: Teacher Educators/Trainers—Inservice***

During the early 1990s, school-based inservice programs were adopted by several African countries including Lesotho, Ghana, and Swaziland. In most countries, trainers come from a variety of backgrounds including:

- Full time trainers in inservice centers—former teachers who have specialized in training and tend to be responsible for organizing courses, regulating supply and demand, and managing training operations.
- Teachers and trainers in initial and inservice training institutions—tend to provide training in their institutions and are sometimes involved in the training provided in schools.
- University staff, experts, and teacher-researchers—provide training in universities and respond to specific requests from training institutes or schools.
- Teachers with a reduced teaching load in exchange for providing inservice training to their colleagues—“peer” trainers working mostly in schools but also in specialized inservice training institutions.
- Inspectors, education advisors, head teachers, and other administrative staff—provide training, some of which is compulsory and often of short duration, on guidelines related to educational policy or educational priorities, developments, and reforms in their country.
- Trainers and experts from the working world and business—mainly provide training in vocational teaching; lead study visits and supervise teachers providing inservice training in businesses.

Source: Greenland (1983)

occurs through a minimum three-year apprenticeship, which some schools extend to five years (Yi and Ma 1992). In the Republic of Korea, the rate of teacher participation in school-based induction has risen from less than 10 percent in 1992 to about a quarter of all teachers in 1994-95 (IBE 1996; Republic of Korea cited in Yogev 1997: 135). Incorporating induction programs within the more general framework of school-based inservice education is common in the United States and other western industrial countries, particularly where initial teacher preparation has been upgraded and lengthened (Darling-Hammond 1994).

New Zealand and Japan offer examples of highly developed induction and internship programs. In New Zealand, it is generally accepted that the first years in the classroom are a continuation of the initial training students received in college, and the first stage of their ongoing professional development. Though registration is not a compulsory requirement, new teachers are not eligible to become fully registered until they have completed at least two years of classroom experience. An “advice and guidance” program is available to all beginning



teachers during their initial two years. The program provides resources and personal support from colleagues; a program of visiting and observing experienced teachers, meetings with other staff, appraisals of the beginning teacher's progress, and a written record of the induction program. In addition, for each new teacher they employ, primary schools are provided with a 20 percent teaching "entitlement" for the teacher's first year. This extra staffing allows release time necessary for the beginning teachers and the senior staff supervising them to work together.

In Japan, beginning teachers are given a lighter work load; attend in-school training two times per week with assistance from designated guidance teachers; and receive out-of-school training once per week. Out-of-school training covers a wide range of activities including volunteer work, lectures, seminars, and visits to other schools, child welfare facilities, private cooperation, and social education facilities. To support induction activities, schools employing one beginning teacher are assigned a part-time lecturer; those employing two beginning teachers are assigned a full-time teacher. The appointing authorities cover funding for induction programs, and the national government covers one half of all personnel and out-of-school training costs.

Hong Kong, the Republic of Korea, and the People's Republic of China also reported having induction programs for teachers, but insufficient data is available to discuss this further. In Canada, the provinces of Quebec and New Brunswick are currently piloting induction programs. In the United States, approximately twenty-five states have started some kind of induction program, although only a few have provided funding for mentors, release time, or graduated responsibility for new teachers. In these programs, teachers are generally employed full time on provisional licenses and are observed and evaluated on their teaching performance as a condition for receiving a professional license after one to three years.

Several schools in Australia have their own induction and support programs for beginning teachers. The Australian Education Union has recently created policy guidelines for launching induction programs. The policies recommend:

- an induction period of one year;
- placement in a supportive school environment with senior teachers;
- a reduced teaching load (80 percent);
- a period of reflection;
- review and informal appraisal and professional development; and
- formal appraisal for permanency or full registration.

## Classroom Supervision of Teachers

The basic goal of supervision and support is the improvement of teacher performance in the classroom. Many international projects have attempted to change the supervisory and teacher evaluation systems in order to improve instruction and to weed out weaker teachers. However, supervisors face a conflict caused by performing both roles of evaluator and facilitator. Supervisors often ask how they can both help teachers grow as classroom instructors when they must also make a written evaluation of their effectiveness. This conflict is so great, that some countries have attempted to separate the roles, with some supervisors evaluating teachers in a traditional “inspector” role and others promoting teacher development. Teachers often feel the conflict too, not knowing whether to rely on the supervisor for support or to avoid the supervisor for fear of receiving a poor evaluation. The conflicting roles are almost inevitable: just as a classroom teacher must be both a facilitator and an evaluator of student progress, so most supervisors are thrust into both roles.

Classroom/clinical supervision was developed with the hope that teachers might react positively to a supervisory style that was more responsive to their concerns and aspirations. One model of supervision contains three stages: planning conference, classroom observation, and feedback conference. Acheson and Gall (1980) list some essential characteristics and assumptions of clinical supervision:

- The improvement of instruction requires that teachers learn specific intellectual and behavioral skills.
- The primary function of the supervisor is to teach these skills to the teacher:
  - skills of the instruction process;
  - skills of analysis of the instructional process based on explicit observational evidence;
  - skills of curriculum innovation, implementation, and experimentation; and
  - skills of teaching performance.
- The supervisory focus is on what and how teachers teach. The main objective is to improve instruction, not change the teacher’s personality.
- The supervisory focus is on instructional issues that are educationally critical and amenable to change.
- The supervisory focus is on constructive analysis and the reinforcement of successful patterns rather than on the condemnation of unsuccessful patterns.
- The supervisory focus is based on observational evidence, not on unsubstantiated value judgments.
- The cycle of planning, teaching, and analysis is a continuing one that builds upon past experience.

- The supervisory process is primarily one of verbal interaction centered on the analysis of instruction.
- The individual teacher has both the freedom and the responsibility to initiate issues, analyze and improve his/her own teaching, and develop a personal teaching style.
- The supervisor has both the freedom and the responsibility to analyze and evaluate his/her own supervision in a manner similar to a teacher's analysis and evaluation of his/her instruction.

How supervisors perform their roles becomes very critical to the improvement of education. Our observation is that the vast majority of ministry of education supervisory personnel in developing countries have little, if any, clinical supervision training. They often have had little experience at the grade levels they are supervising. They seldom encourage or permit teachers to discover their own solutions to teaching dilemmas, and provide little "hard evidence" to back up their criticisms or observations. They seldom hold pre-observation and post-observation conferences, and concentrate more on student behavior issues than instructional concerns.

In light of this rather discouraging picture of supervision, it is important to keep in mind that the basic goals of classroom/clinical supervision are to:

- To improve teachers' classroom instruction.
- To provide teachers with objective feedback on the current state of their instruction.
- To diagnose and solve instructional problems.
- To help teachers develop skill in using instructional strategies.
- To evaluate teachers for promotion, tenure, or other decisions.
- To help teachers develop a positive attitude about continuous professional development. (Acheson and Gall 1980)

### **Accreditation Standards for Teacher Education**

In most developing nations, both preservice and inservice teacher education are a function of the ministry of education, which sets requirements and standards. As nations develop economically and raise the educational requirements for teachers to a post-secondary diploma or university degree, control often becomes a shared phenomenon with the various post-secondary teacher training institutions. When there is only one public university or teacher training institution, quality controls and close contacts with the ministry of education are not too difficult to maintain. However, when there are numerous private and public post-secondary institutions, all involved in forms of teacher education, other mechanisms need to be put into place. In the United States, some European countries, and a growing

number of developing nations, accrediting organizations have been formed to help set standards and maintain high levels of quality for teacher education.

Constituent groups for accreditation vary from country to country, but may include any or all of the following professional bodies: teacher unions or professional associations; national, provincial, or local policymakers; and associations of teacher educators at normal schools or universities. While these types of groups are well represented in most of the industrialized world, many professional associations are only now starting to come into existence in many developing nations. While teacher unions and national policymakers have been well represented in discussions of teacher training, it is only in the last decade that curricular groups, professional specialty groups, teacher educators, and regional or provincial policymakers have begun to seek involvement in the control and improvement of teacher education.

With regard to crash course and other short initial teacher training with ongoing job support, the issue of accreditation must not be overlooked. Provision needs to be made for these teachers to accumulate “credits” in the various areas where they are gaining skills and mastery of subject matter that might be put towards the achievement of a final teaching diploma or degree. Perhaps completing various modules of work over a longer period of time could also be incorporated into the system that would also go towards certification. Whatever system is created, these teachers should not miss out on the opportunity to gain their diplomas and degrees just because they came to teaching via a less traditional route. Accrediting agencies need to make provision for these alternative teacher education programs.

## Conclusion

This chapter has highlighted key lessons learned on initial teacher preparation. These lessons include:

- Beginning teachers need initial preparation in their subject matter, language of instruction fluency, knowledge of how to use instructional materials, and some basic classroom management and reflection skills. Most of these skills are best learned through on-the-job practice with coaching. This can either be done through a traditional preservice program with substantial supervised practice teaching, or with close supervision while on the job.
- There are a range of alternative teacher preparation programs that might be used depending on the local needs and constraints.
- Whatever program is developed, an appropriate system of accreditation should also be put in place so that *all* teachers can work towards both high standards and professional status.

- A range of monetary and nonmonetary incentives should be considered at different stages of teachers' careers to attract suitable candidates, establish job satisfaction, and improve instructional practice.
- Teacher education faculty should be active in classroom and school research, model good practices in their own teaching, impart subject pedagogies clearly, have a clear concept of how adults and children learn, and take time to reflect with students about teaching practice.
- Induction programs are essential to guide and support beginning teachers in their first few years of teaching, as it is necessary to develop sound teaching practices as well as help retain teachers in the system.
- Classroom supervision should aim at improving teacher performance in the classroom.





## 4. Case Studies of Ongoing Professional Development Programs

### Guatemala: Changing Teacher Pedagogy in the Nueva Escuela Unitaria

*Learn, Practice, Apply*

—Motto of the Nueva Escuela Unitaria

#### Introduction

One of the more interesting and promising broad educational reform movements with many teacher training components is that of the Nueva Escuela Unitaria (NEU) in Guatemala. NEU was one of three initiatives of BEST, the Guatemalan Basic Education Strengthening project. While there were many promising results from the other components of the project, this case study concentrates on NEU as the most successful intervention, particularly as it relates to teachers and classrooms.

#### Background of NEU

Despite Guatemala's protracted civil war (a peace treaty only having been signed in 1997), the Government, through the Ministry of Education, made a radical move to improve the quality and equity of educational opportunity for its indigenous and other rural populations, particularly those students in its multigrade, one-to-three teacher primary schools. The NEU traces its history back to the UNESCO Geneva Conference recommendations of 1961, which served as the impetus for many countries in the world to concentrate on the tens of thousands of rural, multigrade schools (Mogollón, Rodriquez, and Solano 1996). With 33 percent of all primary schools in the country, 20 percent of all the children, and 50 percent of those enrolled in first grade, these rural, multigrade schools were targeted for major improvements in 1967. Among the many problems and challenges facing these schools were the following:

Schools where few children have the chance to receive a complete primary education; without libraries; where teachers have the first and last word; bound by four walls; where children memorize the multiplication tables; where children are passive and teachers cover the traditional curriculum; parents participate in meetings where they just receive children's grades; where boys and girls repeat grades and are often absent in order to work with their parents, and there is a great quantity of older children who are not permitted to attend due to lack of flexibility. (Mogollón et al. 1996)



While an office of multigrade education was formed and some progress made in the intervening twenty-two years, it was not until 1989 that Project BEST, an initiative of the Ministry of Education with assistance from USAID, began its work. One component consisted of the improvement of Escuelas Unitarias (Unitary Schools); other components focused on the use of interactive radio and increasing gender equity for

girls and women. While some educational techniques and methods were adapted from the United States and Europe, Colombia's Escuela Nueva was seen as the primary model for the reform, using seven basic components:

- flexibility in learning;
- active student participation;
- specific learning techniques;
- students working independently in a discovery approach;
- formative evaluation of student learning;
- flexible promotion based on student self-guided workbooks; and
- the participation of parents in the school.

While the NEU project went beyond these basic characteristics of the Escuela Nueva and developed its own basic model, the influence of the Colombian schools is still visible in the overall approach to rural educational reform.

The Ministry of Education began the intervention with 100 schools and teachers. The program included a cost-effectiveness study, eighteen self-teaching guides for grades 1 through 6, detailed teacher guides, learning cards for self-learning, a basic school library for use also by the community, and a design for teacher training for multigrade, unitary schools. In 1989, there were 3,265 one-teacher, 2,096 two-teacher, and 1,191 three-teacher primary schools. While the overall BEST project got underway in 1989, it was not until 1992 that the NEU was started in the northern regions of Alta Verapaz and Baja Verapaz and the southern regions of Santa Rosa, Jalapa, and Jutiapa. A second group of 100 schools was added in the same departments and regions of the country, following initial successes in the first 100 schools. Finally in 1995 and 1996, a third generation of schools was started under separate entities: the Social Investment Fund and Pruned started 74 new schools in the Department of San Marcos, the Catholic Salesian Order of DON BOSCO developed 549 NEU schools in the Department of Alta Verapaz; and the international charity Plan Internacional developed 21 schools, with plans for a total of 80 in the Departments of El Progreso, Zacapa, and the Municipio of Amatitlán. Finally, the coffee growers of Guatemala committed to developing 100 schools on their plantations using the NEU model.

It is difficult to know exactly how many schools ultimately could be considered fully developed NEU schools due to the fact that at least three groups of schools entered the program between 1992 and 1996; that both publicly and privately funded and developed schools began to use the overall methodology; and that the BEST project developed

other projects such as Eduque a la NiBa and DIGEBI, both of which used some of the NEU ideas and materials, but were not necessarily NEU schools. By 1996, there were an estimated 927 NEU schools out of a total 11,664 schools, with 1,315 teachers and 49,472 pupils. Plans were underway to expand the program to the whole Guatemalan primary system within the next year.

#### **Initial Participants in NEU**

***Students:*** Project leaders decided to work with three groups of schools—near the main roads, at undefined intermediate distances, and at distant sites. Almost all children in these settings work alongside their parents from a very early age, and those attending primary school vary from ages 6 or 7 up through 17. These children bring their indigenous cultures to the school, and NEU sought to respect those cultures in the formal educational process. In the initial years of the project, 54 percent of school-aged children were enrolled, with girls outnumbering boys by a ratio of 29 to 25. However, regular attendance was only 55 percent. Girls tended to drop out at third grade, as parents felt this was the age when they should begin preparing to become mothers, and they were fearful of their girls falling in love with fellow students.

***Teachers:*** The average age of the teachers in the two regions was 34, with a majority of teachers between the ages of 26 and 35. Fifty-three percent of the teachers had between one and five years of teaching experience, and 27 percent from six to ten years. Sixty-four percent had lived from one to five years in the community in which they were teaching, with 24 percent having from six to ten years. Sixty-nine percent of the teachers had the title of urban primary educator, 18 percent that of rural primary educator, 3 percent were teachers of bilingual primary education, and 10 percent did not report their certificates or titles. Only 53 percent of the teachers were able to communicate with their students in a Mayan language. Only 19 percent of the teachers had received any form of inservice training during their careers, but 92 percent wanted additional training. Initial observations and surveys indicated that 83 percent used an oral classroom “lecture” approach, with 53 percent making use of some type of reading instruction. In one region, 37 percent of the teachers lived in the communities in which they taught. In the other region, only 8 percent lived in the community, but 42 percent were from the region. Of the 440 NEU teachers interviewed for the initial study, 68.7 percent believed that the unitary school was a valid alternative for primary education. While many of the teachers were not from Mayan language groups, some were able to write and speak some Mayan languages.

***Schools:*** Fifty percent of the schools in the initial study were seen as having adequate buildings; 80 percent were community or governmentally owned. Over one-third of the schools had no desks. Schools with fifty or fewer students were generally assigned one teacher, schools with fifty to seventy-five students were given two teachers, and schools with more than seventy-five students were assigned three teachers.

***Communities:*** The size of the communities varied, with 13 percent having from 1 to 20 families, 38 percent having 21 to 50, 33 percent having 51 to 100, 13 percent from 101 to 200, and 32 percent having more than 200 families. The majority of the communities owned their own land (68 percent) and all were involved in the annual cultivation of crops such as corn, beans, coffee, rice, and flowers for personal use and sale commercially. Some communities also had small cloth, ceramics, and arts and crafts industries.

***Selection Process:*** In order to select the 100 teachers and schools for the initial project, all 865 teachers in the two regions were invited to participate in a meeting to explain the project, and 440 (51 percent) attended, indicating initial interest. Teachers in very isolated schools were first invited, followed by those more closely located to the main population centers in order to provide all with an equal chance of participating. From this group, 110 communities were selected, 100 pilot and 10 laboratory schools.

***The Colombian Connection:*** It was decided that departmental and regional directors and technical staff from the participating regions would visit the Escuela Nueva in Colombia to observe student retention, new forms of learning and evaluation, student government, and the mechanisms for promoting a similar process in Guatemala. This helped to set the stage to develop administrative support within the regions for the educational reforms. While the NEU model has obvious historical, philosophical, and practical connections and similarities to the Escuela Nueva, it has attempted to make itself culturally and linguistically sensitive to the Guatemalan context. Teacher guides, student workbooks, and instructional materials, while bearing some similarity to the Colombian materials, were developed by Guatemalan educators, and are filled with local content. It is safe to conclude that while the model is similar to Colombia's, the working out of the model is quite different.

***Leadership:*** A key factor of the ultimate success of the NEU was the employment in 1992 by the BEST Project of Oscar Mogollón, a Colombian and one of the founders of the Escuela Nueva in his home

territory. Dr. Mogollón brought not only thirty years of experience in working in rural schools, but also an international reputation for the design, implementation, and expansion of the Escuela Nueva throughout his home country. Every local, regional, national, and international informant speaks of his work as absolutely critical to the success of the program. Unlike other educational reformers, the Mogollón family did not remain in the capital city, but moved directly to the rural region in which the project was to be conducted. This appears to be more than a symbolic move, as participants, particularly indigenous teachers, soon saw him and the other local leaders as one of them, not as outsiders coming in to “change” their schools.

***Problem Identification and Action Plan:*** In June 1992, teachers from the 100 participating schools in the two regions, met to “identify the needs, problems and solutions” for the NEU. Four major areas were identified: administration, curriculum, training, and the community. Attempts were made to make all plans “realistic, concrete, objective, integrated, participatory, based on Guatemalan reality, valid, reliable, and applicable.” While none of these words could be considered new or original in planning an internationally funded project, formal and informal evaluations over the next five years indicated that NEU had achieved them at a level seldom seen in other projects.

The teachers used a planning method to identify problems with causes, effects, and independent and dependent variables. In the solution stage, the general and specific objectives, quality indicators, and the resources needed to carry out plans were developed. Reports of these early sessions indicate that it was the first time that rural, indigenous teachers had ever had meaningful input into planning a project and that this was a key factor in ultimately changing the way they taught and the way their schools would be run. It was also one of the first times they had worked together as teachers in such a process and this generated a level of confidence and motivation not seen before. One of the components that came out of these planning sessions was the concept of teacher circles, in which groups of teachers in a region participated in analyzing, studying, reorienting, and validating curriculum materials or pedagogical methods and applying them with their students.

***Key Elements/Underlying Principles:*** Many observers of the Colombian Escuela Nueva and the NEU in Guatemala point to the contemporary philosophical and research-based origins of the many components of the two programs. While Oscar Mogollón and others involved in the two programs are delighted by research evidence supporting their work, and although they are well acquainted with educational reforms throughout the world, much of what they have done was the result of

trial and error, and experimentation in the rural settings, rather than the forcing of theory into practice. Among the many components of NEU are such widely discussed, but seldom implemented reforms, as:

- treating teachers as reflective professionals;
- creating teacher circles to discuss classroom and community partnership issues;
- encouraging collegiality and sharing of ideas;
- promoting active learning;
- developing flexible curricula and calendars;
- bolstering parent and community involvement;
- generating public-private partnerships;
- imitating school-wide daily meetings;
- generating bottom-up school-based reform; and
- promoting national commitment.

It is not difficult to see the influence of John Dewey in many aspects of the NEU schools, but particularly in the emphasis on democratic participation, community involvement, and experiential learning. While both NEU and the Escuela Nueva have somehow evaded being labeled “radical,” such Freireian concepts as respect for and empowerment of the poor, locally developed content, and community control have been more fully developed in these schools than in most of the failed, radical educational experiments around the world.

A detailed evaluation of NEU by researchers from Juarez and Associates and the University of Pittsburgh (Baessa et al. 1997) pointed to the international research underpinning many of the program components. Newman (1989) and Resnick (1989) have researched active learning pedagogy, and the benefits of collaborative or cooperative learning has been documented by Brown and Pancasar (1989) and Slavin (1983). The peer and cross-age tutoring and learning that can be observed in all NEU classrooms has been researched by Johnson and Johnson (1975) and Larson and Christensen (1983). In other words, the Colombian Escuela Nueva put into practice many of these ideas—often through trial and error—even before they were fully documented in the international research literature. And now the Guatemalan NEU is providing evidence that they work in even the most difficult and poverty stricken rural, indigenous communities.

While each of the many components found in the NEU can be found in educational reforms in countries throughout the world, there is, to our knowledge, only one other comparable reform movement in the world, the Escuela Nueva in Colombia that integrates all of them into a unified package. It is our observation (and that of many external evaluators) of both programs that it is the integrated nature of the reforms, rather than



any one specific component that has led to their success. For that reason it is difficult to concentrate on only the teacher education aspect of NEU without commenting on how administration, supervision, instructional materials, buildings, textbooks, workbooks, civic education, libraries, pedagogy, learning corners, flexible promotion, and the other components described above contribute to its success. However, since this report is basically concerned with preservice and inservice teacher education, we shall concentrate on how this is carried out by NEU, and how these other factors contribute to changing teacher classroom behavior. Those wishing more detailed descriptions of the Escuela Nueva in Colombia are referred to the UNESCO/UNICEF publication (1991), *In Search of the School of the XXI Century: Is the Colombian Escuela Nueva the Right Pathfinder?* by Ernesto Schiefelbein; for a detailed history and description of the NEU in Guatemala, the Ministry of Education and USAID publication (1996), *La Escuela Rural Guatemalteca en Los Albores del Tercer Milenio* (Spanish only) by Oscar Mogollón, J. Ana Roxanda Rodriguez, and Marina Solano de Mogollón.

### **Research and Evaluation Findings**

The NEU schools were evaluated in a series of studies by Chesterfield and Rubio (1996 a,b; 1997 a,b) and by Baessa et al. (1996). The Eduque a la NiBa project used small scholarships, community outreach workers, parent committees, and special educational materials to improve attendance, promotion, and girls' participation. The results of research indicate that the scholarship package was the most effective means of promoting girls' participation, especially at the first grade level. In a study of girl's and Mayan participation in Guatemalan primary education, Chesterfield and Rubio (1996) found that various BEST projects, including NEU, led to significantly higher attendance and school completion rates; teachers received almost twice the amount of training in how to work with female and Mayan students; NEU schools had more active classroom participation by girls and Mayan students; and girls were more likely to participate actively when taught by female teachers.

***Teacher Effectiveness in BEST Schools:*** In a study of BEST teachers, Chesterfield and Rubio (1997) looked at two indicators. The first was support provided to teachers in the form of resources, guidance, and training as a measure of the infrastructure that can contribute to teacher performance. The second was teachers' understanding of the key elements of an innovation and commitment to them as an indicator of their ability to implement the learning strategies. Over the three year study, between 90 and 127 teachers in 36 to 45 schools were studied in settings using the three major classroom innovations listed in the study above (DIGEBI, NEU, and NiBa).

The study concluded that BEST teachers have been effective in advancing children through primary school, with significantly more students advancing in grades 3 to 6. The project has had a positive effect on the availability of textbooks in project schools; however, in DIGEBI and NiBa schools the materials were available less than 50 percent of the time as compared to 80 percent of the time in NEU schools. Increasingly positive attitudes towards the innovations were found in all three programs, but the researchers held that mastery of key elements of the different innovations and commitment to using them did not increase greatly. While BEST schools had up to 30 percentage points more bilingual teachers than comparison schools, the use of Mayan still remains low, being used in less than 20 percent of interaction engaged in by Mayan-speaking teachers with their students. In the comparison school, only 40 percent spoke Mayan in any year, and even those teachers who did speak a Mayan language used that language in less than 10 percent of their interactions with children. While support for the project innovations remains high among school administrators, this has not been translated into greater involvement of teachers in school decision-making in any of the three programs.

***The Improvement of Educational Quality in Guatemala:*** The Institute for International Research studied the NEU project as one of several research projects throughout the world. Baessa et al. (1996) compared ten NEU and ten traditional rural Guatemalan schools, using a sample of first and second grade students in 1993 to follow. The study found that NEU schools retained significantly more students; students achieved at a higher level in mathematics and reading; indigenous students who had some knowledge of Spanish remained in school a significantly longer time; even students with low nutrition were more likely to remain in NEU schools; active pedagogy in NEU schools contributed to emotional growth, participatory behavior, group work, helping other pupils, and expressing opinions; NEU teachers had greater confidence and ability to work in multigrade classrooms and used small group instruction; both NEU and regular schools had approximately two hours of instruction and one of recreation each school day; and parental satisfaction in NEU schools was higher, with parents citing their children's ability to read better and behave better at home.

The authors recommend the continued expansion of the NEU schools to improve the efficiency and quality of schools in the rural areas. They point to the need to not only use test scores to measure quality, but also to include the numbers of pupils who advance through the grades and graduate. NEU needs to be careful to continue to train teachers in the various elements of the program to maintain and improve quality. The use of mentors and teacher circles, along with training supervisors to

make systematic observations in the classrooms, should be continued and strengthened. The evidence that bilingual children do well in NEU schools, while monolingual indigenous children do poorly, indicates the need to develop bilingual versions of NEU materials. With the evidence that even malnourished children do better in NEU schools, there needs to be continued emphasis on integrating nutritional programs along with the active learning. Finally, strategies to extend the actual time of instruction in these rural schools need to be developed.

***Research and Evaluation Conclusion:*** While NEU has achieved some outstanding results in comparison to the traditional rural schools, there is still a great distance to go before rural, indigenous children in Guatemalan schools achieve equity with their non-indigenous rural peers, to say nothing of poor or middle class urban children. We now turn our attention to those components of NEU that appear to have been most successful in changing the way teachers go about teaching in their classrooms.

#### **The NEU School and Classroom**

The NEU primary classroom is unlike that in the traditional Guatemalan school or, for that matter, the vast majority of classrooms in the developing world. Rather than the teacher in front of a class, writing on the board, with children laboriously copying the symbols into their notebooks, not a single large blackboard was observed. A few small chalkboards were scattered around some of the classrooms, and when asked where they got them, the teachers replied that they had cut up the large blackboard to prevent formal teacher lectures and so that students could have something to write on. In visits to NEU schools in several communities, not a single example of large group instruction was observed. Rather, while the teacher was working with the first graders on basic literacy and numeracy, the rest of the children were working in small groups of two to six in their self-teaching workbooks. Periodically children would get up individually or in groups to go to a learning center-corner or to go outside the classroom to find an answer to a particular question raised in the workbook.

***Teacher Empowerment:*** Ever since the formation of teachers' unions in the United States and Europe, teachers have sought to improve not only their financial well-being and security, but to be seen as professionals. In Latin America in general, and Guatemala specifically, teachers have also sought improved status. Typically throughout most nations when educational reforms are promulgated by central ministries of education or university-based educational theorists, teachers (particularly poorly paid, undertrained, rural primary teachers) are almost never consulted. NEU, however, is based on a deep and abiding faith in the ability of

rural teachers to *diagnose* the difficulties facing them, *reflect* on possible solutions, and then *act* to change their reality. This reform genuinely respected the abilities of even the poorest and most untrained teachers.

This faith in and respect for classroom teachers is evident throughout the training workshops, in the teacher guides and self-teaching student workbooks co-authored by hundreds of rural teachers, and in the ongoing teachers' circles. While the research indicates that they have not been as deeply involved in the administration of their schools as the founders had hoped, the depth of their involvement in curriculum and instruction is almost unprecedented in the developing world. When projects such as this expand rapidly to include a whole region, department or nation, there is a serious risk that this grassroots involvement will be lost or seriously compromised.

#### **Historical Benefit of the Colombian Escuela Nueva Experience**

While the NEU is not a copy of the Escuela Nueva in Colombia, many of its most successful components can be traced to its predecessor, e.g., the appointment of international advisors; the observation visits to Colombia; the emphasis on poor, rural, multigrade schools; the types of teacher training; the instructional materials; and the underlying educational philosophy and practice. While many of the ideas and concepts have been cited in the research literature and put in practice for decades in some industrialized countries, the Colombians were the first and most successful developing nation to put them into coherent practice. The fact that a fellow Latin American country, facing many of the same challenges among its rural poor and indigenous populations could successfully change its school, provided an obvious impetus for Guatemala to take the same step.

#### **Inservice Education Model**

While many—perhaps most—nations put considerable sums of money into initial teacher education in the hope that the next generation of teachers will be better than those currently teaching, NEU put the vast majority of its effort into working with practicing teachers. The research literature in the industrialized nations is replete with the difficulties of “changing teacher behavior” due to the fact that teachers “teach how they were taught.” NEU has successfully shown that when teachers are deeply involved in all aspects of the reform; can actually put into practice good theory; are provided with supervisory, peer, and instructional support for their innovations; and are respected as professionals, they can and will change their pedagogical behavior. While Module 7 of the teacher guides dedicates almost half of its content to practice teaching and curricular changes in the normal schools, our observation is that almost all the changes that have

occurred in NEU schools are the result of inservice education, and that the government normal schools neither understand nor promote the model. In fact, opposition to the reforms can be detected within the normal schools, the university, and the Ministry of Education.

***Voluntary Participation and Local Personnel:*** One factor of the success of the program is that all initial NEU teachers participate voluntarily. Unlike top-down reforms, this reform began with teachers, and the ongoing inservice role played by practicing teachers through the teacher centers maintains their ownership of the reform. One of the critical concerns when the project is expanded nationwide is whether teachers who are forced into the new approach will accept its philosophy and approach when not consulted on the original design. An additional concern is with the “Hawthorne effect,” namely, what happens to a reform when the participants no longer see themselves as part of a new or grand experiment.

***Teacher Guides, Lesson Planning, and Instructional Materials:*** A major concern of teachers worldwide is the need for help in implementing any given curriculum or pedagogical method. Too many teacher guides give detailed instructions on how to go about teaching a particular concept, but teachers often lack the training or the materials to put them into practice. Thus, teacher guides worldwide are notoriously underutilized. The NEU teacher guides are action-oriented documents written by practicing teachers, and NEU teachers are given detailed training. Further training sessions and teacher circles provide teachers with a regular opportunity to seek help on implementation or to revise or reject particular components.

While teachers in most industrialized nations have moved towards unit planning and less detailed daily lesson plans, teachers in developing nations usually spend an inordinate amount of time writing out detailed lessons for each subject, listing objectives, learning activities, evaluation techniques, and materials. While this task is not totally without merit, it is an impossible burden for rural multigrade teachers, particularly those teaching six grades. Such teachers have had to prepare from thirty to forty daily lessons, something even the most experienced, best trained, and educated teachers in the world would find impossible. The self-teaching workbooks designed by NEU provide a way in which multigrade teachers are relieved of this burden, at least for grades 2 to 6, and can thus concentrate on first grade instruction and providing regular feedback to students as they progress through the books. Some critics have suggested that this takes away from the creativity of the teacher and violates the constructivist nature of student learning. Observations of the classes and evaluations of the

materials, however, provide evidence that the self-teaching student materials actually lead to a far wider array of student learning activities than occur in the traditional, large-group, chalk-talk classrooms that dominate the developing world. Also, the materials themselves have been written in a way that promotes far more critical thinking than do most teacher-directed learning activities. This is not to say that the materials are perfect but that they have freed the teachers in ways seen in few other settings around the world. The self-teaching materials are one of the only mechanisms we have seen that permit the classroom teacher to teach all grades levels simultaneously, rather than having all the students in a grade 1 through 6 classroom participate in lessons that are either too easy, too difficult, or too repetitious.

***Classroom Pedagogy:*** Teacher lectures and writing on the chalk board, combined with student copying in notebooks, rote memorization, and unison chanting in a large group setting characterize the vast majority of classrooms in developing countries. However, in the NEU schools, one seldom observes any large-group, teacher-dominated instruction. Rather groups of two to six students at a particular grade level can be seen working at a table, a learning corner, the library, or outside working in their self-teaching workbooks. The large chalkboard has been removed from most NEU classrooms, and while these classrooms generally have more instructional materials than a traditional, poor rural school, it is the *way* materials are used by students rather than their quantity that is exceptional in these classrooms. The library, always under student management, is meant to be used during the school day and books borrowed overnight rather than kept under lock and key (which characterizes school libraries in almost every other developing-world setting). While few NEU teachers achieve “on-task” behavior from the students 100 percent of the time, evaluations indicate a very low level of student discipline problems and an extremely high interest level by students in “doing their work.”

Many, if not most, teachers want to get out of their dominant, disseminator-of-information role, but have never been given the training or instructional tools with which to do so. NEU appears to have found a solution—not yet perfect—but nevertheless one that has proven to provide a successful student-centered academic learning model.

#### **A Public Normal School<sup>3</sup> Initial Teacher Training Model**

Currently, the weakest aspect of the NEU is the initial teacher training program. However, this is not necessarily due to lack of effort on the

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<sup>3</sup>“Normal schools” is a term sometimes given to institutions that are specifically designed to train teachers. While most senior secondary teachers throughout the world are currently trained at the post-secondary level, either in universities or “superior” normal schools, primary and junior secondary level teachers in several countries are still trained at the senior secondary level.



part of the project. There are several possible explanations for the failure of NEU to have much effect on or connection with the public normal schools of Guatemala.

- The normal schools were brought into the process after the basic direction of the project had been set, and thus they are seen as someone else's project.
- Normal school educators are often urban educators with little experience in the rural schools setting, and thus they do not feel comfortable with the approach.
- Normal school educators are university-trained theoreticians with insufficient practical experience to know how to apply theory to practice in difficult, rural multigrade settings.
- Teacher educators with advanced degrees have difficulty accepting reforms that come from less well educated classroom teachers.
- Philosophically, NEU is a progressive educational reform, and many teacher educators are both traditionally trained and conservative.
- Traditionally, the vast majority of students in the public normal schools are Ladino (non-indigenous) urban young people, who have little or no desire to teach or live in rural indigenous communities; thus, there is little motivation to prepare them for a poor, rural, bilingual multigrade classroom.
- Rural, multigrade, indigenous teachers have seldom had the chance to obtain advanced degrees and thus are seldom found as normal school instructors.
- Traditional normal school teachers have little or no experience in community development, health, agriculture, site-based management, or other skills needed by teachers in rural communities.
- While some public, boarding normal schools exist, there are not enough places for all eligible young people.
- Like normal schools in much of the world, there is a strong emphasis on academic theory, with application coming towards the end of the program during practice teaching. NEU is dependent on theory being put into practice immediately, reflected upon, and changed as necessary.
- Much of the practice teaching is done for half a day in schools near the urban normal schools, which makes it difficult, if not impossible, for many students to be trained in NEU model schools.
- While NEU curricular materials conform to the national curriculum, they are "extra," and thus not all normal schools and their students have had ready access to them.
- With the dependence on traditional course work, normal school students and their instructors have usually not participated in NEU

workshops or the teachers' circles, both of which are critical to understanding and implementing the model.

While the project appears to have had little effect on the public normal schools, NEU has been adopted by two private schools. The Salesian Brothers, DON BOSCO movement, Programa Educativo Don Bosco for males, and Talita Kumi for females have adopted the NEU philosophy and approach and are now providing well trained teachers for the NEU schools. Some of the important characteristics of these two institutions are the following:

- They have a fundamental commitment to training poor, rural indigenous people who will return to their communities.
- They are located in the rural areas they serve, and provide boarding facilities for their students, who come from distant villages.
- Large numbers of rural, indigenous children have little access to basic cycle schools and drop out long before reaching the admission levels to traditional normal schools. Students at Don Bosco and Talita Kumi do not have to have completed elementary education before coming to these centers, but rather outstanding young people are chosen by their communities to attend, and then work towards primary, basic cycle, and diversified cycle diplomas.
- The educational philosophy calls for graduates to be “agents of liberation...and to confront the problems in the community and resolve them.” Teachers learn facilitation skills, not just how to impart knowledge.
- Gender equity for indigenous women is a major focus of Talita Kumi, with special training in family education, hygiene, agriculture, and various income-producing skills to enable women to fully participate in the life of the community.
- All course work has a strong practical, experiential component to it, with students entwining theory and practice in workshops, fields, clinics, and schools on a daily or weekly basis
- Several longer-term models for combining theory and practice exist.
  - Two groups of students alternate semesters working in rural schools or being on campus for training.
  - A voluntary year of rural teaching following graduation from the basic cycle (ninth grade) or upon completion of the bilingual primary teaching program (twelfth grade).
  - Distance education through formal materials from January to September followed by regular classes at Don Bosco from October to December.
  - Alternating eight or sixteen-week periods between training centers, rural schools, and communities.
- These training centers provide instruction in both Spanish and indigenous languages, something not often found in the public

normal schools. Strong attempts are made to make all aspects of the programs culturally sensitive and relevant to the needs of the indigenous students.

- While the skills, concepts, and topics normally taught in normal schools are covered, students also receive extensive training in health, family, agriculture, fisheries, brick-making, carpentry, small business development, community organizing and development, community service projects, and other skills necessary for survival and development in poor, rural communities.
- Using a self-help model, schools working with Don Bosco do not wait for the government to act, but rather build the building and make the furniture, when necessary, for their school.
- Schools are under the leadership of a local committee of parents, with Don Bosco staff serving as facilitators. Funds to pay the teachers and provide other services are administered by these committees.
- Teachers are trained to work with adults in the community, not just the children. This includes many of the practical skills mentioned earlier, in addition to adult literacy training.

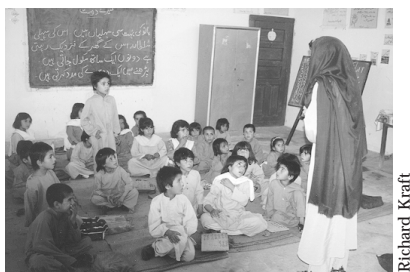
### **Conclusion**

NEU is an exceptional program in many respects. It is a classic example of a “bottom-up” reform, in which empowered teachers are actively involved in changing their own environment. It has been so successful that the Ministry of Education is attempting to replicate it throughout the country, but it remains to be seen whether a pilot project, under charismatic leadership, using voluntary teacher participants, can be replicated and sustained at a national level. While the lack of public normal school support or involvement is a problem, the private Don Bosco normal schools are developing a new model of teacher training. A major key to the NEU reform is the integrated nature of all aspects of the program, including the components of teacher training, teacher manuals, student workbooks, parental involvement, theory into practice, and individualization. While most, if not all of these components, can be found in other programs around the world, we have never seen them all in one place before and working so well together.

### **Gender Equity, Mobile Teacher Training, and Mentoring—Balochistan, Pakistan**

#### **Background**

The Primary Education Development (PED) project in the Pakistani provinces of Balochistan and the Northwest Frontier began in 1990, following the first school census that found that only 10 percent of the rural primary schools were for girls, even though 20 percent of total enrollment was female. While this project was initially sponsored by



USAID, it has recently become a World Bank project, now known as the Balochistan Primary Education Development Program (BPEP). Perceptions of the program's success are not without controversy, but the project's major focus, providing greater access for girls to schooling, has been achieved. The three basic goals of the PED were to:

- Establish a separate directorate of primary education with female district education officers to support rural girls' schools and teachers, with no restrictions on placing women in senior posts, including director of primary education;
- Expand primary education for girls, especially in rural areas; and
- Strengthen teaching training and support programs to overcome gross deficiencies in preservice and inservice training.

In this case study we concentrate on the province of Balochistan, Pakistan's largest province with 43 percent of the nation's territory, but only 5 percent of the people, 80 percent of whom are scattered in small villages, often with little access to potable water, electricity, health facilities, or education. With villages separated by an average of thirty miles, unpaved roads, and a rural economy based on livestock and agriculture, the province presents one of the more challenging environments. Four major ethnic tribal groups, Balochis, Pathans, Barahvis, and Siraikis, with different languages and cultures, make up 85 percent of the population, with the rest being primarily immigrant Punjabis and Mohajirs.

While educational quality and quantity have both been in serious need of improvement throughout the province for all children, the statistics on girls' educational access have been truly depressing. While sources differ on the exact percentage of female literacy in the province, from 1 to 4 percent (UNICEF undated; O'Grady 1994; Anzar and Darnell 1997), it is one of the lowest in the world today. Nationally, the female literacy rate in Pakistan was 22 percent, but considerably higher than in Balochistan. The educational challenge of differing languages and cultures has made provincial-wide reforms difficult, and while most rural villages at least had a boy's primary school, it wasn't until PED came along that girls began to have a better chance at obtaining an education. Overall, the provincial female participation rate was 17 percent, with a 94 percent dropout rate between Kachi (kindergarten) and grade five (O'Grady 1994).

#### **Female Participation Obstacles**

Observers and researchers have listed a range of reasons for the low female participation and high dropout rate in the province (Anzar 1997; O'Grady 1994; UNICEF undated). These include:

- Vocal constituencies received the most help and rural girls' primary schools were neglected.

- There was a perception that parents in the rural areas did not want their daughters to go to school. This proved untrue following a careful needs assessment.
- Girls' education was thought by some to be a waste of time, as their labor was needed at home and many would get married by age 13.
- School buildings were poorly maintained, seldom had appropriate facilities for girls, and were often not within safe walking distance.
- Primary education was not the official responsibility of any specific department of government, and thus there was no place for parents or the community to seek help to start a school, particularly one for girls.
- Resources were directed towards more prestigious secondary schools.
- There was a serious shortage of female teachers, with rural women often unable to complete sufficient education to become teachers, and urban women unwilling or unable to teach in remote villages.
- While over 60 percent of all teachers were untrained or undertrained, female teachers had only two teacher training colleges to attend, both located in or close the provincial capital, and there was no budget or inservice training for female teachers.
- While the needs assessment punctured the myth that rural people would object to their daughters being trained by males, the myth persists.
- It was believed that families would not permit their daughters to go away from home for teacher training or work, but young women teachers often lived in groups, took public transportation to their training or school site, or lived with relatives at the training or school site.

### Statistics

The overall statistics between 1991 and 1996 under the various governmental, non-governmental, and international components of the project are most impressive, and have brought it a great deal of international recognition.

No. of regular and probationary schools founded .....	360
No. of first and additional teachers appointed .....	461
No. of teachers trained .....	393
No. of village education committees formed .....	359
No. of women's village education committees formed .....	261
No. of girls enrolled .....	2665

The BPEP plan calls for increasing total primary enrollment by 1999 to 760,000 from 318,000 in 1989. Girls now represent more than 30 percent of total enrollment, up from 20 percent in 1989. Plans for the 1997/98 year call for opening at least 270 new girls' schools, with a strong dependence on the communities and NGOs to facilitate the process.

While boys' enrollments are expected to rise 3.7 percent in the coming year, girls' enrollment is projected to rise 17.4 percent. The projected relative participation rates of girls to boys in primary grades is targeted to improve from the 1996 level of 45 percent (1:2.2) to just over 50 percent (1:2) in 1998, and to more than 60 percent (1:1.5) in 1999. It is estimated that by 1999 at least 70 percent of all children will have completed some primary schooling; however, less than 30 percent will have completed Grade V. Plans call for the opening approximately 1000 girls' primary schools between July 1, 1996, and June 30, 1999, of which between 800 and 900 will be started under the Community Support Process of BPEP (150 per year) and PEQIP (120 per year) (Director Primary Education 1996).

Between 1993 and 1996, the total number of government primary schools increased by 711 or 9.3 percent, and the number of girls' primary schools increased by 488 or 53.8 percent. Girls' enrollment increased an average 16 percent per year as compared to the boys' 6.2 percent. Student teacher ratios have remained uneven, with boys' schools averaging 21.6 pupils per teacher and girls' 47.1, but efforts are underway through teacher training to continue to lower these ratios, particularly in schools where there are more than 50 pupils per teacher.

#### **Prior Teacher Training**

Prior to the intervention of PED, initial and ongoing teacher training in the province was weak to nonexistent. Over 60 percent (8,000) teachers had been posted to schools with no training whatsoever, and the rest were seriously undertrained. Females had a particularly difficult time, because both teacher training colleges were in or near the provincial capital, making it nearly impossible for girls from distant villages to attend. In addition there was no budget for ongoing training. Reimers and Warwick (1995) summarized the difficulties in teacher training:

Most of them obtained their positions through recommendations from provincial and national politicians. The province then assigned them to teach for five or more years before they received any training. By that time, they had formed the teaching habits that would be hard to dislodge even with the most effective training courses. They saw their training not as a way to improve their teaching but to get the certificates that they needed to be called trained and to be promoted.

#### **Mobile Female Teacher Training Unit (MFTTU)**

A human resource survey and census conducted in 1989 by UNICEF, USAID, and the Pakistani Government found that there was strong parental demand for girls' primary schools in 75 percent of the villages



among not just women, but also male parents and community leaders. The survey also punctured a common myth that there were no girls or women with sufficient education to become teachers, finding many girls whose middle (grade 8) or matriculation (grade 10) qualifications were achieved either by attending boys' schools or by living with relatives and attending schools in the city. Finally, the survey "discovered" 28,000 girls who had been attending boys' schools who had not been previously accounted for.

The PED program began a joint program with UNICEF known as the Mobile Female Teacher Training Unit (MFTTU), a unique program to take teacher training into the remote villages rather than having the female teachers come to sites long distances from their homes. A difficulty faced in getting qualified girls certified was the fact that many had only completed eighth grade, not the minimum tenth grade matriculation. This required that the government relax its standards and provide special programs to help meet the needs of these female teacher candidates. This innovative program was begun in February 1992 to link communities and the government in a partnership that would not only lead to new schools for girls, but schools staffed by female teachers. As with most successful interventions, a pilot project was first started with twenty-seven villages under the direction of a strong female divisional education officer. In June 1992 the government expanded the program to 120 teaching posts, providing the communities with evidence that the government was serious about following up on its commitments.

A major challenge to the success of the MFTTU was the modification of the traditional teacher education curriculum. A worldwide phenomenon has been the intransigence of teacher educators, accrediting organizations, and governmental agencies to changing standards, curriculum, entrance or exit requirements, school-based learning, and the other components that make up the teacher education requirements. MFTTU had among its basic curricular goals:

- provide quality training to the teachers;
- be compatible with the existing basic teacher training standards;
- be easily understood by the trainers; and
- be conducted in a condensed time period without compromising the standard PTC number of contact hours between trainers and trainees.

The permission to offer a nine-month course in three months during vacation proved to be a critical component of the program's success, as it led to significant time and cost savings and meant there was no longer a need for substitute teachers, almost none of whom were available in remote rural villages. While the quality of either the traditional or

“shortened” teacher training is not known, both offered a basic core curriculum, and the shortened summer course offered approximately 90 percent of the prescribed formal PTC training offered at regular teacher training colleges. In fact, it was found that due to strict management controls, students in the shortened summer course actually received more contact hours, as there were fewer interruptions due to strikes and other disruptions. Eventually, the provincial government agreed that graduates of the program could receive a PTAC “alternative” certificate and could continue working towards regular tenth grade matriculation. In addition, the government decided to expand the program to include all 8,000 male and female teachers throughout the province.

**Balochistan Instructional Materials Development Cell (BIMDTC)**

A major key to any successful teacher education program is the development of instructional materials. The BIMDTC has completed new textbooks and teacher guides for Kachi (Kindergarten) and Grades I to V, with the main thrust of the materials reflecting an activity-based, child-centered approach, adaptable for use in multigrade settings. Attempts have been made to treat all sectors of the province in a positive and equitable fashion, and teachers have been trained in the use of the materials prior to their introduction into the classrooms. In addition to the teacher guides and textbooks, the BIMDTC has also developed and produced a range of supplementary materials such as a pre-language kit box, a number wall chart, an alphabet chart, and a map of Balochistan. Story books for Grades I, II, and III have been produced for distribution to all schools.

**Non-Governmental Organizations**

An interesting component of the PED was the creation of a local NGO, the Society for Community Support for Primary Education in Balochistan, which took over many of the responsibilities for the maintenance and advancement of the various components of the program. The Society rapidly grew into a fairly large organization that serves many community development and monitoring functions. Due to the success of the Society, there are currently attempts to either form new NGOs in other parts of the province, or to provide training to NGOs to carry on the expansion of the project into additional regions of the province. While not unique to Balochistan, the formation and maintenance of an NGO to carry out many of the tasks of an internationally funded project appears to be a powerful mechanism to encourage local involvement and commitment, in addition to helping maintain momentum, if and when international assistance is cut back or discontinued. The Society has provided a cadre of well trained, committed young people to carry on the work.

Two other NGOs play a role in the reform of Balochistan's educational system. The Teachers' Resource Center in Karachi provides longer-term specialized training for the field trainers as part of the MFTTU, and Institute for Educational Development at the Aga Khan University in Karachi serves a critical role in providing eight-week training sessions for the mentor-trainers in the new Primary Teacher Mentoring Program (PTMP). To have highly qualified national NGO trainers with up-to-date skills, linguistic and cultural competencies, and commitment to educational reform is a great advantage to any program.

As part of a broad based social-action program (SAP), the Government of Balochistan formed the Primary Education Quality Improvement Project (PEQUIP), which began in 1996 under a grant from the Government of the Netherlands to provide special outreach programs to improve the lot of the rural female through strengthening village and women's village education committees, help form new (or strengthen existing) NGOs in underserved regions, conduct community assessments, hire and train master teachers, and select and train learning coordinators, field promoters, and master trainers. This unique program attempts to assist and supplement the work of government bureaucracy by helping to expand the efforts in female education through its various activities. While it is too early to provide much of a qualitative judgment on PEQUIP, the organization has already helped establish 109 schools, which, along with the 167 established under BPEP, give a current total of 276.

#### **Early Successes and Failures of the MFTTU**

For prestige and credentialing reasons, trainers for primary school reforms worldwide are often selected from among secondary school or university-based teachers. Too often these individuals have little or no experience in either primary schools or rural areas, and often little commitment to new curricula or pedagogies. With this in mind, MFTTU attempted to instill in trainers from the local areas a commitment to the reforms. Successful initial programs included regular visits by governmental officials and NGO field teachers and an in-depth survey of the community to assure that there were sufficient girls and teachers actually residing in the village. Community leadership was critical in successful settings, as was the direct supervision and monitoring of a supportive female divisional education officer. Given the eighth grade level training of most new female teachers, communities that provided tutoring and other assistance to the teacher helped to assure success of the program. Finally, communities in which women supported the teacher by caring for small children at school proved to be important.

Difficulties or failures were encountered in settings where the teacher candidate selection process was politically influenced, or where their credentials were not properly verified. Some teacher candidates lacked the necessary literacy and numeracy skills, or were insufficiently skilled in the Urdu language. Communities that had not been visited or in which there was insufficient commitment to girl's education were more at risk of failure. Bureaucratically, in those areas where male district administrators saw girls' primary education as an additional burden, or where the MFTTU training was weak, girls' primary schools tended to fail at a greater rate (Anzar and Darnell 1997).

### **Process of the Community Support Program (CSP)**

One of the most important contributions of the PED to international education projects was the fourteen-step process developed to empower communities to take responsibility for girls' primary education. Research from throughout the world has indicated the importance of community involvement for any type of meaningful educational reform to succeed, and the literature is filled with well meaning suggestions on how to bring communities into the process. The CSP in Balochistan is not a set of general principles, but rather a highly specific set of steps, which through experimentation the members of the PED found to be not only important, but necessary if a girls' primary school was to have a chance of succeeding in a remote rural village. Anzar and Darnell (1997) list a fourteen-step process; O'Grady (1994) lists thirteen-steps; and UNICEF lists ten responsibilities of the village education committee and eleven for the Education Department. We include here Anzar and Darnell's fourteen steps in the community support process.

### **14 Steps of Community Support Process (CSP)**

1. *Identify a female with middle (grade 8) or matriculation (grade 10 qualifications).*
2. *Verify her residence in the village.* (Actual, not ancestral home.)
3. *Verify her academic credentials.* (Many credentials are falsified, so they need to be validated by the district education office.)
4. *Test basic proficiency in math and Urdu.* (Many candidates have been out of school a long time and do not have sufficient knowledge of the basics.)
5. *Conduct a village survey.* (The teacher becomes part of the assessment team that talks to mothers in each household, getting the names and ages of potential girl students. Her participation gives the team a chance to observe her interaction and communication skills, and encourages the community to accept her as the teacher.)
6. *Form a village education committee (VEC) and women's village education committee (WVEC).* (These committees of five to seven parents only,

may not have two members of the same family, nor may members be relatives of the teacher.)

7. *Start school on three months' probation period.* (Community education committees provide a place for the school, and reading and writing material for the children. Although the teacher has not been officially trained yet, she is expected to organize the school and manage children's activities. The village committees support her in this endeavor.)
8. *Request village committees to formally sanction the school.* (A letter from the VEC and WVEC to the DEO requesting formal sanctioning of the girls' primary school and requisition provision of mobile teacher training for their teacher.)
9. *Sign a contract between the government and the community.* (The district education officer visits the school and when satisfied, signs a contract with the village outlining the responsibilities of each partner.)
10. *Transfer village land to the government for construction of school.*
11. *Provide mobile teacher training for the teacher for three months.*
12. *Ask villagers to prepare the school facility so that once the teacher comes back from the training, the school can start functioning without delay.*
13. *Monitor the school.* (Weekly and monthly meetings of teacher and community members should be held, with regular visits by government officers and NGO field personnel frequently visiting the school to monitor the enrollment and teachers' attendance.)
14. *Arrange a meeting once a year in which all village members participate.* (This serves an information dissemination function and builds support for the school in the community.)

On one level, this list appears obvious or even simplistic, but in observing the success rate of the various schools over the seven years of the project, it appears that each step has been carefully thought out and experimented with. When steps are skipped or not carefully monitored, the schools tend not to function well or fail. The visitor to schools in this project is immediately impressed with the level of commitment of the teachers, the involvement of parents (particularly mothers and other village women), the order and cleanliness of the schools, and the pride of the community in having their girls attend school. It is also clear to observers that the girls' primary schools—although often taught by teachers with “lesser” formal qualifications—are utilizing many more modern teaching methodologies and that the children are much more actively involved in learning than is true of most boys' primary schools.

#### **The Primary Teacher Mentoring Program (PTMP)**

A more recent and innovative component of the inservice teacher training for the BPEP is the PTMP. Traditionally, inservice teacher

training for Balochistan's 18,000 primary teachers was in the form of large, centralized mass trainings for up to 1000 teachers at a time participating in two-week workshops in mathematics–science and social studies–Urdu. These courses often introduced new methodologies and materials, but didactically, with little positive effect on teacher behavior. Afghan et al. (1997) listed the following reasons for the ineffectiveness of this approach:

- There was limited transfer to actual classroom practice due to the one-shot limited nature of the intervention.
- The curricula and materials were too often developed in isolation from the needs of teachers, and were seldom relevant to the level and needs of the primary teachers.
- There were insufficient well qualified trainers to maintain quality.
- Due to the size of the inservice programs, logistics and delivery problems consumed most of the time, leaving little time for quality and impact.
- The intensive, residential model involved payment for transportation, daily allowances, and accommodation, all of which were considered to be insufficient by the participants, which created resentment.
- The relatively high cost of the training made it difficult if not impossible to institutionalize and sustain over the long-term.

With these criticisms in mind, the PTMP attempted to design a new model in which inservice training occurred at regular intervals; was woven into the daily lives of teachers; was practical and based on the expressed concerns and needs of teachers; involved trainers who were themselves primary—not secondary—teachers, and who themselves participated in regular training; was decentralized and district-based with the training being taken to the teachers; and involved minimal costs for allowances and accommodations, and thus was cost-effective and led to greater likelihood of institutionalization and sustainability.

***The Major Purposes of the New PTMP Are to:***

- assist teachers in understanding and effectively using the new textbooks and teacher guides;
- help upgrade teachers' content knowledge in the four major subject areas;
- develop teachers' reflective practice and problem-solving skills in teaching, administration, and community relations; and
- facilitate a process of collegiality in order to reduce teacher isolation and thereby enhance the prospect of nurturing substantive change in teachers' beliefs and practices.



Ten clusters of thirty to forty teachers are formed within each district, designed in such a way that no teacher must travel more than sixteen kilometers to the cluster meeting site. District education officers nominate the most capable primary teacher from each cluster to serve as mentor-trainer for the other teachers in that cluster, and these mentors are then sent to the Institute for Educational Development at the Aga Khan University in Karachi for an eight-week training session in mentoring, problem-solving, reflective practice, and appropriate teaching methods in the four major subjects. Each month, two-day workshops for teachers are held at the central site of each cluster, overseen by the mentor. The topics covered in these workshops are those identified by teachers the previous month; content knowledge deficiencies identified by teachers that were unable to be solved in the previous month's workshop; and scanning ahead in their textbooks and teacher guides to identify and solve problems they anticipate encountering in the following month.

A Teaching and Learning Resource Team (TLRT) in Quetta takes the unsolved problems from the field, works out solutions, and develops simple materials for the mentors to use in training and mentoring the teachers to overcome those particular deficiencies. They also work with the teacher training and support (TTS) staff to develop one-day modules for training the mentors. As mentors gain greater confidence and facility in their role, they are beginning to take over more and more of the problem-solving, materials development, and workshop design roles from the central office staff.

Initial results from this experimental program are very promising. One observer commented that teachers who at the start of the mentoring program were shy and afraid to voice their perceived weaknesses and problems are now contributing willingly and playing an active part in the problem solving process at cluster meetings. Other teachers and observers have commented that teachers' attitudes have changed from "teacher-centered" to "child-centered" as a result of new methodologies learned at the cluster meetings. Older and more experienced teachers are able to share their skills and knowledge with younger teachers—and many commented on the collegiality that was developing for the first time in their professional lives.

The directors of the program emphasize the increased confidence of the teachers, both in their personal and professional lives. The mentors appear to have succeeded in creating an open, trusting environment in the clusters. As teachers gain confidence, they move from problems of a general nature to those in their own classrooms and their personal deficiencies. Rather than always looking to experts for solutions, the

teachers now speak of problem-solving on their own. There is evidence in most of the clusters of teachers taking greater initiative to deal with instructional, administrative, and community issues. As teachers have begun to learn from each other, some of the natural stratification that occurs in bureaucratic educational settings is breaking down. Skills in student-centered teaching and participatory, constructivist approaches to pedagogy are now being seen for the first time in the schools. Finally, communication between teachers and with administrators has improved as a result of the mentoring program.

Some of the difficulties encountered in the program involve the lack of administrative support in some districts, and obstruction by the teachers' association, which does not believe in "teachers training themselves." Bureaucratic rules have prevented the paying of even small honoraria to the mentors, and payment for other expenses has often been difficult to clear through the system. Finally, due to the weak infrastructure throughout much of the province, it has been difficult to visit or troubleshoot problems in a timely manner.

Several important lessons have already been learned from this exciting new experimental program (Afghan et al. 1997):

- Teachers are often their own best resource in their professional development. Teachers have been empowered. The "cult of experts" has been effectively challenged, and primary teachers have come to recognize that they can solve their own problems, and that the strength and knowledge of the group can greatly facilitate finding the appropriate answer or solution.
- The process is, to a large extent, the product. Through the process of identifying difficulties and problems and brainstorming solutions, teachers have not only come to view themselves as capable, but have learned a technique to apply with their own students. These need-based, dialogue-filled workshops have proven so different from the didactic nature of traditional inservice training that their effects on teaching behavior have been much greater.
- The collaborative, peer-coaching approach creates an open, accepting environment in which teachers are more willing to take risks, thus bringing about the greater possibility of changed behavior. Teacher morale has been improved, as has collegiality.
- When supported by learning coordinators and district education officers, teachers have been willing to take real risks, but when the formal bureaucracy is opposed, risk-taking is seriously limited. All levels of the bureaucratic structure need to be involved in the planning and executing of the mentoring program if it is to succeed.
- Selection criteria for mentors must go beyond seniority and into commitment and skill at facilitating group process.

The PTMP is an innovative, decentralized, need-based, field-based, and cost-effective program that holds real promise for improving the inservice training of teachers not only in Balochistan, but for programs elsewhere in the world.

#### **Some Keys to Success of the MFTTU and Mentoring Programs**

- Careful needs survey and assessment prior to program development and implementation
- Committed and strong national female leadership at all levels
- Government support for female education and teacher training
- Formation of an NGO to carry out many of the tasks
- A carefully designed and tested implementation program
- Successful pilot programs before expansion
- Experienced international consultants
- Selection and training of local, rural women who would remain in their villages
- Permission to modify the traditional teacher education curriculum
- Willingness of authorities to permit shortened time period for training during summer months
- After successful implementation with female teachers, program expanded to include all 8,000 male and female teachers in the province
- Highly skilled trainers for local or national NGOs
- Community support program
- Cooperation between various funding agencies
- A good mix of governmental, international, and NGOs in a coordinated effort.
- A strong materials development program, including teacher guides, textbooks, reading books, and other instructional aids.

#### **Conclusion**

While the pedagogy practiced in most Balochistan girls' primary schools is still somewhat traditional, it is easy to observe the changes that have occurred as a result of the various aspects of PED and BPEP, the Community Support Process, the MFTTU, and the newer mentoring program. Teachers in the girls' primary schools appear to be much more willing to use manipulatives, cooperative learning, peer teaching, active learning, and many other modern pedagogies than they are in the boys' primary schools. With their generally newer and better-equipped buildings, the girls' classrooms tend to be more caring learning environments than are those in the boys' schools. The female teachers, particularly the mentor and those with a few years experience, are enthusiastic in their work and are willing to share lessons from their successes and failures. Finally, the rapidity with which this project has been able to bring thousands of girls and women into the formal

educational system is impressive. In sum, their successes are due to strong female leadership by Pakistani women, the formation of an effective NGO to work beside the government, the willingness of the bureaucracy to bend some rules, the cultural sensitivity of the project leadership, the empowerment of local communities, the care with which surveys and needs assessments were carried out, and a careful assessment and monitoring process.

## 5. Lessons Learned About Ongoing Professional Development—The Years After Initial Preparation

*Staff development efforts involve people in interaction with one another in particular contexts to accomplish professional growth and improvement goals.* (Griffin 1983)

Chapter Three began with a plea to stop thinking of teacher education as preservice preparation followed by intermittent sessions of inservice training, but to think of professional development as ongoing throughout a teacher's career. This chapter continues with that perspective. It looks at the education and support that teachers need after their initial preparation. Some of the issues raised in Chapter Three still apply here, such as incentives, accreditation, clinical supervision, and teacher educators. Bearing that in mind, this chapter seeks to concentrate on education and support issues that have not already been mentioned and are relevant to the years of a teacher's career after their initial preparation. The chapter focuses on: i) characteristics of effective programs, ii) evaluation of programs and teachers, iii) organizational models, and iv) some regional trends.

### Definition of Terms

Several terms are used to describe the training and support that occur after teachers have received some initial preparation for the job of teaching: inservice education, INSET, staff development, and professional development to name a few. In many communities, the term "inservice" often conjures up the narrow definition of short training sessions provided away from the school setting, or programs to gain further teaching credentials. "Professional and staff development" connote more the idea of comprehensive development, which may include training, ongoing support, career growth, incentives, etc. In this report, the terms listed above are used interchangeably to refer to the range of lifelong learning activities by which teachers, principals, and other school staff should be able to extend and develop their professional competence, personal education and aspirations, and general understanding of their changing roles and tasks. It includes both guidance and training received while teaching on the job, and programs undertaken away from the school setting, and both formal and informal education.

### What Works, What Does Not, and Why?

Inservice programs are varied in nature and quality, and only some have undergone formal evaluations to determine effectiveness of different organizational deliveries and the effect on student achievement. Some findings appear to indicate that inservice training does not improve student academic achievement (Harbison and Hanushek 1992; Warwick et al. 1991; Raudenbush et al. 1992). None of this research, however, measured the quality or content of the training programs, only whether it was provided. Wolff et al. (1994) conclude



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that research on inservice training shows generally inadequate results, particularly when those programs are designed to provide teachers with another degree or higher pay. A particular program that Wolff (1994) and his colleagues deem to be particularly wasteful encouraged the country's primary teachers to get a higher education degree leading to a 50 percent salary increase. This led to a vast expansion in inservice and distance education programs costing US\$500 per year per student, but with *no* evidence of improved learning or reduction in repetition rates. However, despite the frequency with which such programs occur, there are other programs that do enhance teaching quality and student achievement. What makes the difference?

Effective professional development programs that are known to make a difference to the quality of teaching support teachers to develop their classroom practice. Programs that provide further credentials are important for developing the professional status of teaching, establishing teaching standards, and assisting in career growth, etc. However these training programs do not always provide adequate linkages and ongoing support with classroom practice, and therefore actual instructional practices are often not changed, and the quality of teaching and student learning is hindered. Therefore, the following section will focus on the characteristics of effective professional development programs that tend to improve classroom practice.

## Characteristics of Effective Programs

Effective professional development programs, particularly for those teachers with little or no teacher preparation, tend to have the following characteristics (based on the work of Andrews et al. (1990), who compiled opinions from nineteen internationally known experts from eleven countries; and Esu (1991); Dempsey (1997, 1994); Dove (1982); Griffin (1983); Hutson (1981); Joyce and Showers (1980); Lawrence (1974); Lockheed and Verspoor (1991); Loucks and Zigarmi (1981); National Center for Research on Teacher Learning (1991); Orlich (1983); Mosenthal and Ball (1992); Schiefelbein (1992); Tatto (1997); and Tatto et al. (1993); and Van Tulder and Veenman (1991) through their surveys and reviews across several countries).

### 1. Needs Assessment

An initial determination of what are the needs, interests, and strengths of teachers and other staff is essential before professional development activities are designed. For example, do participants need an induction program to support their initial teaching experience, and what training, if any, do they already have on which to build? Will the program provide specific new knowledge and skills needed by the participants or is it for refining already acquired knowledge and skills? Does a



program for ongoing support need to be organized? Will this training improve student learning? How will this activity fit into the school's overall program?

This information is important to determine the goals, content, best delivery method, and evaluation of the activity, whether it be a specific inservice training program or larger ongoing support program. Teachers and other staff must have a say in what training and support they require if it is to be relevant to their needs.

## **2. Careful Planning in the Wider Context**

Effective programs are well planned, and tend to be formal in nature. Some of these programs focus on improving the performance skills of individual staff, or on organizational or curricular issues that will affect the whole staff, and some programs for small groups of staff. An overall strategic framework for the long-term effort is necessary. The overall planning needs to consider how various needs might be met: peer coaching; action research in the classroom or school; visits to other classrooms or schools; visits by outside specialists, officials, and consultants; meetings with parents and other community members; short meetings; whole day activities held at the school or another location; retreats for the entire staff; longer development workshops (two to five weeks release time); whole semester release; use of teachers' centers; resources shared in school clusters; district level training; and long-term programs in centralized institutions (Howey 1980). The programs also need to be structured to reduce anxiety and fear of change, and the activities proven to be clear improvements from existing practice (Ryan 1993).

## **3. Participatory Planning and Implementation**

Apart from close consultation about their needs, teachers, principals and other local participants along with administrative officials need to be involved in the next planning steps of the program (Loucks and Zigarmi 1981; Griffin 1983). Esu (1991) states that in the work of Lawrence (1974) that reviews and analyzes ninety-seven studies on inservice education, those programs that involved participant teachers in the planning of such activities tended to have greater success in accomplishing their objectives than those without the assistance of the participants. Tatto (1997) concludes from her review of the work of Mosenthal and Ball (1992), National Center for Research on Teacher Learning (1991), Schiefelbein, (1992), and Tatto et al. (1993), that the most effective and relevant inservice programs are those that allow high levels of local participation in both the design and implementation. There is also sometimes a need to involve local parents and community members in some inservice programs.

Some teacher education programs have been developed in local communities and later have been supported by central governments and international agencies (Booker and Reidl 1987; Canevero 1984). In these programs, teachers, principals, and teacher educators worked as a team in the school to educate the community about its schools, the curriculum, and to learn a great deal about the characteristics of the local children and families. Locally recruited teachers develop a special role as mediators between mainstream culture of the school and the local culture of the pupils. One example of this type of program is the Compensatory Education Project in Malaysia. This project attempted to improve the educational opportunities for the children of rubber states through heavy involvement of parents. It was distinguished by its flexibility and responsiveness to the needs of parents as they educated themselves to educate their children (Dove 1982). Other approaches have been initiated at the central ministry level but successfully implemented at the local level. An example of this is the Nigerian Primary Education Improvement Project, which used mobile teacher educators to instruct teachers individually and in groups in six schools. The project helped teachers achieve curriculum understanding and effective lesson application (Dove 1982). Based on these experiences, educators have argued for the importance of rethinking traditional approaches for teacher training.

Three other examples of teacher programs that use high levels of participation for planning and implementation are the Escuela Nueva in Colombia, the NEU in Guatemala, and the Compensatory Program to Address Educational Lag, or PARE, in Mexico. In all cases, the emphasis is on the formation of learning communities (of teacher educators, teachers, students, and parents/community) and changing the traditional role of teacher to be a facilitator of student learning.

In comparing Escuela Nueva and PARE, Tatto (1995) notes that in both programs:

- There was a reliance on central structures of authority and foreign aid to help teachers gain ownership in the process of changing how teaching and instruction were carried out in the schools. Implementation was left to local groups.
- Change took time (fifteen years in Colombia, five in Mexico).
- The lasting innovations were the joint product of several groups (teachers, teacher educators, students, parents/community members).
- Strong and debilitating obstacles needed to be confronted in order for the programs to succeed.
- Attention to the process of how the innovations came about rather than the product are essential in attempts to develop context-

relevant approaches. For example, attempts to replicate the Escuela Nueva programs in Venezuela, Honduras, Ecuador, and Bolivia failed, but succeeded in Guatemala with adaptation.

- Schools were transformed into learning centers as teachers learned how to change their practice; students and families learned their roles in the learning process as well.
- Participants worked together to develop instructional materials, explore how to teach the material conceptually, and share information to strengthen each other's subject knowledge.
- Supervisors and principals were trained in an attempt to make them partners with teachers in the learning process as well as to help change the concept of their role as administrators to that of "instructional leaders."
- The teacher's role was changed to a "facilitator of learning."
- Regular meetings, face-to-face contact with advice from instructors and other teachers, incentive packages, and on-the-job support for staff were provided, particularly for those in marginal areas.
- There was a focus on providing low-cost schooling to children from disadvantaged areas.

#### **4. Applicable Curriculum Content and Methods**

The curriculum of the program needs to provide a balance of pedagogy and subject matter as opposed to exclusive emphasis on one or the other. It should also include practical methods to teach subject matter, child development, and learning theories in ways that are relevant to the student context, ways to evaluate teaching and learning, multigrade classroom management, and ways to develop parent-school-community relations through participatory learning strategies such as discussion, simulations, and teaching practices. Many teachers do not teach as effectively as they could because they do not understand students, how they learn, and classroom dynamics.

The pedagogical component of effective inservice programs often contains four key elements: i) methods for helping teachers acquire specific skills for teaching the existing curriculum; ii) methods for teaching meaningful rather than just rote learning; iii) methods for developing in pupils positive attitudes to lifelong learning; and iv) methods for helping teachers engage in curriculum development.

Joyce and Showers (1980) suggest that five essential components should be in training programs: i) presentation of theory or description of skill or strategy, ii) modeling or demonstration of skills or models of teaching, iii) practice in simulated and classroom settings, iv) structured and open-ended feedback about performance, and v) implementation

in the actual classroom. However, *the most critical component is that the inservice programs include provision for ensuring implementation in the classroom of the acquired learning, and that ongoing support facilitates this.*

While basic teaching and classroom management skills are important, especially for new teachers who may have little initial preparation for the job, it is also essential that teachers develop good evaluation and decision-making skills. Mastery of skills shaped by judgments about how student learning can best be achieved, and positive attitudes are important areas to develop. Peer coaching, self-evaluation, and reflective group discussion are some inservice techniques that might be adopted to enhance this critical thinking.

***Special Needs of Rural Teachers:*** Teachers in rural areas face special problems that may need more emphasis in the inservice programs—dealing with isolation, working within the local community values and expectations, multigrade teaching techniques, administration of small schools and heavier workloads, rural familiarity and lack of privacy, difficult housing and sanitary conditions, safety and value concerns (particularly for female teachers), and resource acquisition issues. In the study by Gibson (1994) on preparing teachers for rural education in Australia, it was recommended that not only was there a need for specialized programs of teacher education and induction for rural teachers, but that staffing practices and policy guidelines in departments of education needed to reflect national policies to appoint such teachers only after they are provided with adequate training and support.

#### **6. Ongoing Guidance, Monitoring, and Support**

Programs that focus on continuous development to guide, monitor, and support necessary skills, knowledge, and new ideas tend to be more successful in bringing about change at the classroom level than those that seek quick fixes to fill up deficiencies or those that simply provide a qualification. Tatto (1997) reports that inservice programs typically focus on helping teachers implement new curricula in conjunction with state values and educational reforms (Ajie 1981; Grieg 1989; Hicks 1993; Konting 1989; Maoldinmhnaigh 1987; Van de Sijde and Tomic 1992; Van Tulder and Veenman 1991). These, Tatto reports, are usually short, one-time programs that are known *not* to be as effective as ongoing programs that focus on guidance and support at the school level (Calkins 1983, 1986; Schiefelbein 1992; Tatto and Velez in press).

This ongoing support is essential for effective transfer of skills and is easiest developed through the school-based model. The main support comes both from within the school environment (e.g., principal, other

teachers) and personnel from the larger education system and community.

At the level of the principal, the quality of teachers' work and student learning tends to be enhanced when the principal: i) sees that the resources are available to provide adequate support to teachers, sufficient learning materials, and well maintained learning facilities; ii) pursues high instructional standards by clearly and frequently stating in concrete terms the school's mission, curricular goals, and expected teaching behavior; clearly and frequently expresses high expectations of pupils and the school's focus on learning as its central purpose; iii) coordinates and manages the learning process; iv) communicates regularly and effectively with teachers, parents, and others in the community; and v) maintains high visibility and accessibility to pupils, teachers, parents, and others in the community (Heneveld and Craig 1996; Craig 1996).

At the teacher level, support to help the application of new skills into the classroom includes: i) coaching about classroom skills and management from mentors and peers; ii) a continuing study group with other teachers with similar inservice experiences; iii) coordination of the inservice with the regular supervision of teachers; and iv) provision made for traveling consultants to visit teachers.

At the level of the larger education system, effective support happens when the system: i) delegates authority and responsibility for improvement to the schools themselves; ii) communicates expectations or exerts pressure for successful academic results; iii) provides important services to schools such as advice and training about instructional practices and management, resources needed to achieve instructional goals, and protects the school from political turbulence; and iv) monitors and evaluates schools' academic performance, recognizes successes, and provides support to overcome weaknesses (Heneveld and Craig 1996; Craig 1996). Motivation is likely to be enhanced for the inservice program where increased salary or other benefits are ensured.

At the level of parents and community, support for the ongoing work of teachers may be in several forms: i) seeing that pupils come to school healthy and prepared to learn; ii) providing financial or material support for the school's operation; iii) communicating frequently with school staff; iv) assisting with instruction both at the school and in the home; and v) assisting with school governance with meaningful authority (Heneveld and Craig 1996; Craig 1996).

Two examples of support for teachers are provided at the end of this chapter. The first is a district resource teachers' program in Lesotho that identifies qualified primary school teachers to travel to schools and help other teachers with their classroom work, a program that is still in operation nearly six years after the USAID-sponsored project ended. The second is an example of institutional support providing small grants and motivation for teachers to take responsibility for their own professional development in Guinea.

## **Organizational Models**

There are various organizational models that are used to provide professional development for teachers, either as ongoing support, or for training at various stages of the teaching career. Several models are described here. The one noted for its effectiveness in changing classroom practices is the school-based model. The continuous or life-long professional development model is not well developed in many educational systems, but its principles are strongly supported in current debates on the importance of ongoing support for teachers. The other models provide important support for various needs such as the establishment of an adequate stock of teachers quickly, and credentials from formal institutions. The models that do not have the school setting as their prime focus would have a greater effect on teacher performance where this linkage to classroom practice could be strengthened. Combinations of the various models should be considered, depending on the local context.

### **Continuous or Lifelong Professional Development Model**

The model of lifelong education as a well developed national practice is rare, but as Thomas (1997) comments, countries including the United States, the United Kingdom, Australia, the Netherlands, Germany, and Sweden are developing interesting prototypes. One of the challenges with this model is to match an appropriate incentive system and career path with actual improvement in teacher performance, a challenge that countries such as Singapore and Malaysia have been struggling with. It is the model of life-long learning—ongoing professional development—that is strongly supported throughout this study. It can incorporate the school-based and other models presented in this chapter, but its essence is a holistic, long-term approach to ongoing professional development that includes training, support, and career growth.

### **School-Based Model**

This model had the strongest support both from the survey of Andrews et al. (1991) and other experts, and works best when a combination of the following in-school activities are used: i) individual consultations between the teacher and the supervisor or other experts, especially with



emphasis on classroom supervision; ii) observation of excellent teachers, discussion, peer coaching, and mentoring; and iii) visits to other classrooms and schools. Peer coaching, in which two teachers observe each other's classes with the objective of helping each other improve their instructional abilities, has become increasingly popular along with mentoring programs. The school-based model is very effective for long term guided learning. The support and participation of the head teacher or other designated "director-organizer" is essential. The school-based programs should be controlled jointly by teachers, outside officials, and head teachers (Anderson et al. 1994; Andrews et al. 1990; Gordon et al. 1995; Kling and Brookhart 1991; Newton et al. 1994; Voltz 1995). For additional information on the school-based model, see the regional trends section below and the example from Egypt in snapshot three at the end of the chapter.

### **School Clusters, Local Teachers' Centers, and Resource Centers**

School clusters (such as those employed in Thailand, the Philippines, and Sri Lanka) are very helpful to share scarce material and human resources. Core schools tend to host educational resource centers developed and operated jointly in the cluster (typically five to ten schools, more in Sri Lanka). The learning action cells in the Philippines exist at the school, district, and regional levels and are used for school evaluation and staff development for both teachers and principals. Similar organizational patterns operate in Nepal, in the Cianjur project in Indonesia, and in the school zones in Zambia. Small schools, in particular can benefit from clusters of schools teaming together.

However, in many cases, the establishment of resource centers in school clusters fail. Bray (1987) and Knamiller (1998) have identified several key issues that need to be answered in the affirmative for successful operation of resources centers in school clusters:

- Is there common agreement between the schools about clearly stated objectives?
- Does the topography of the areas to be covered allow easy access to the centers—consider ease or difficulty of communication and transportation, time, physical weariness and cost?
- Is there support and collaboration of participants involved in the cluster?
- Is there participatory planning and implementation between staff from the schools?
- Is there support and collaboration of education officers higher up in the education system?
- Are the skills of the people responsible for the teaching, training, mentoring, and support adequate?

- Do the activities undertaken at the resource center have a strong application to classroom practice?
- Are there outreach programs or personnel that visit the other schools in conjunction with programs offered at the main resource center?
- Are the resources and support in the center appropriate to current staff needs?
- Is there adequate equipment and resources?
- Is there sufficient release time for staff to attend the center in school hours?
- Are there incentives in place to attract staff to use the center and collaborate?
- Is additional staffing needed for the center? Is additional staffing feasible and affordable?
- What are the requirements for financing: the center, release time for teachers, outreach program from the center to schools, staffing?
- Are the costs and benefits of resources shared—financial and non-financial?

Additional examples of different types of school clusters and resource centers are provided in Snapshots 4 to 8 at the end of this chapter. These provide examples from Australia, Papua New Guinea, Bangladesh, and Pakistan.

### Box 3: The Microcenters (Teacher Centers) in the Escuela Nueva in Colombia

According to Schiefelbein (1992: 69-71), the teachers:

...learn by doing in three programmed one-week workshops organized by the decentralized regional unit in charge of training with intervening practice periods, and limited supervision. In the first workshop each teacher visits a demonstration school, learns about the operation of the student council and the layout and organization of the learning activities areas, and participates in group discussion. The second workshop is held when the school has been adopted as the Nueva Escuela model requires: work in small groups, student council elected and community informed usually two or three months after the first workshop. In one week teachers learn to use the self-instructional textbooks correctly, practice the multigrade approach, flexible promotion, and are encouraged to introduce innovations; in the third workshop, teachers learn to organize and use the class library, maps, posters, and flexible promotion, and reinforce their ability to work with several grades at the same time. This is also an occasion for review and moves into follow-up evaluation, and problem solving. At the end of the third workshop, teachers receive a 100-book library. After each workshop, teachers are invited to meet once a month in a nearby school in what is known as microcenters. These microcenter meetings operate in demonstration schools to analyze problems and discuss results. No hierarchical staff relationships are generated by microcenters as they were in the old “nuclear” systems; notwithstanding, supervisors do attend the meetings when feasible.

**College or Centralized Institution Model, e.g., Teacher College, University**

This model requires participants to spend most of their time away from the school setting. This model: i) is used for residential vacation programs; ii) is planned and formal; iii) is used more for gaining further teaching and administrative credentials; and iv) should be combined with continuous practice in the classroom and integration of knowledge and skills learned with classroom realities. In many programs, this practice and integration is weak.

**Partnerships**

Other collaborative efforts for professional development include: i) institutional twinning, where a teacher training institution develops a partnership with another well established institution in either the same country, another developing nation, or a more industrialized nation to provide staff exchanges, shared training, ideas, and support; ii) partnerships between local schools and the teacher training institution to provide testing grounds for new research practices intended to maximize student learning (university professors often meet regularly in the schools to discuss practical concerns and problems of the classroom and the schools provide places for student teaching); and iii) individual collaboration of teachers or school districts with institutions of higher education to pursue mutually-beneficial projects such as science and technology exchanges and inservice training for teachers related to the higher education institution programs (Abdal-Haqq 1995; Corcoran 1995; Demsky 1997; Fullan et al. 1995; Osguthorpe et al. 1995; Petrie 1995; Teitel and Del Prete 1995). These last three initiatives provide inservice training for individuals as well as serving to develop and strengthen institutional capacity.

**Distance Education Model**

The growth of distance education in both industrialized and developing countries as a possible cost-effective, more flexible learning approach compared with conventional means is significant (Commonwealth of Learning 1989; Kirman and Goldberg 1980; Nielsen and Tatto 1992; Perraton 1993; Robinson 1996; Tate 1991; Tatto and Kularatna 1992; World Bank 1997). However, in the study of Andrews et al., distance education was not strongly supported as a model for effective delivery, but this may have been a reflection on experiences of poorly developed and supported programs. Robinson (1996: 4-5) also reports that while not all courses have been of good quality or have worked well, “distance education can be effective on a large scale and in rural areas where the least qualified teachers are to be found and they can be instrumental in developing teachers’ knowledge and skills and in supporting a decentralized program of inservice training, strengthening resource centers, and school clusters.”

Factors that have made a difference to the success of distance education programs include:

- adequate support infrastructure, e.g., communications, transport, library resources;
- adequate up-front funding knowing that in distance education there are often high initial and low recurrent costs;
- strong policy backing and credibility of programs;
- high quality materials and acceptance of high standards;
- up-to-date curricula based on recent research on learning;
- well designed self-study materials;
- opportunities to have continuous practice of the learning in the classroom;
- continuous mentoring, guidance, and support with instructors and other teachers/peers;

#### **Box 4: Partnerships Between Schools, the State, and Communities in Latin America—Fe y Alegria**

According to Reimers (1997: 35-42):

Fe y Alegria (Faith and Joy) is an NGO that provides formal and nonformal education at different levels in twelve countries in Latin America. Most of Fe y Alegria's work is in the formal education system. Its basic operating principle is to create partnerships between the organization, the state, and the local community to provide quality education to poor children. In formal schools the Ministry of Education typically pays the teachers' salaries, the communities participate in the construction and maintenance of the school, Fe y Alegria trains and supervises the teachers (in some cases it also selects them), manages the school, and operates as a center for community development. More than half of the students in Fe y Alegria schools (56 percent) are in primary education, 30 percent are in secondary education, and a minority are in pre-primary or day-care centers.

Fe y Alegria's teacher training emphasizes acknowledging the diversity of student backgrounds and allowing students to use non-standard forms of language in school, (or tell stories that reflect diverse home and family experiences). The innovation engaged teachers in the recreation of the vision and of the spirit of the innovation, providing opportunities for teachers at the school level to design their own education projects. To the extent that teachers themselves experience more direct control in influencing decisions about how their school operates, they are more able to respond to increased community participation, and to be effective role-models for their students of active participants in their communities.

The fundamental difference between the management structures of Fe y Alegria and those of public education systems reflects the different vision of teachers and schools: in Fe y Alegria the school and the community are at the center of the system. That is where the action takes place and where initiative is needed.

- reliable delivery of materials; and
- appropriate incentives or rewards to teachers for successful completion of the course.

In addition, programs have been *most effective* when they have focused on upgrading teachers in academic subjects (science, mathematics, or music require elements of face-to-face teaching, practical work, and coaching), disseminating information about new curricula, and when they have been designed for experienced teachers who are also independent learners with a strong academic background. (Biniakunu 1982; Brophy and Dudley 1983; Dock et al. 1988; Ghana 1984; Gardner 1990; Hansen 1987; Hawkrigde, Kinyanjui, Nkinyangi, and Orivel 1982; Henderson 1978; Ligons 1990; Mahlck and Temu 1989; Nielsen et al. 1991; Perraton 1993; Robinson 1996; Tatto and Kularatna 1993; Tatto 1997; Taylor 1983).

#### **Alternative Needs Response Models**

Alternative needs response models are programs used for either pre- and inservice training when: i) large numbers of teachers need to be trained, and ii) training needs to be delivered more quickly (Thomas 1997). Various models cited by Thomas (1997) are: the sandwich model

#### **Box 5: Examples of Alternative Models: Field-Based Training Program in Pakistan and Shortened Training for Secondary School Teachers in Zimbabwe**

The field based program, as reported by Jatoti (1993), is a one-year program that started in 1984 in the northern areas of Pakistan, which is aimed at establishing a system of in-school teacher training for untrained teachers, based on the primary teaching certificate (PTC) syllabus. The training, guidance, and supervision is given by principals in their schools who have been trained as master trainers. Teaching manuals for all school subjects of the PTC course are provided. Teachers receive on-the-job training while in their schools, and then sit for the regular PTC examination at the end of the program. Teachers completing the course were found to have positive attitudes towards teaching, better planned and structured lessons, were effective in asking questions and using instructional aids, and could maintain students' interest.

The other program in Zimbabwe, as reported by Nziramasanga (1991), is a two-year, post-form six course introduced in 1986 for students unable to qualify for entrance into the University of Zimbabwe. The two-year course required students to spend 75 percent of their time at the college studying subjects, foundations, and pedagogy. The students also spent part of their program in schools on supervised internships. Senior school teachers and college lecturers provided guidance. On completion, it was common for graduates to teach at the Form IV level. This program provided the second highest qualification for secondary school teachers. (The highest was the regular university program).

(Hawes and Ozigi 1975), distance education (Mahlck and Temu 1989; Nielsen and Tatto 1991; Perraton 1993); mobile models (Anzar and Darnell 1996; Thomas 1990, 1993); cascade (Dove 1986); master teacher (Aga Khan Foundation 1990); teacher center and outreach models (Thomas 1993); and combinations of the above. Effective and efficient control, management, and monitoring from the central education system is necessary. Some of these programs are discussed in this chapter. From our experience, the cascade model is the least effective approach despite its widespread use.

### **Evaluation of Inservice Programs**

The simplified list of key essential elements for professional development programs would be that they:

- focus on concrete and specific training for instructional and management practice;
- are appropriate to the current needs of the teacher;
- involve teacher and other staff in the planning and implementation of both short and long-term activities;
- include a balance of theory and practice;
- include small-group workshops, peer observations and feedback, coaching, and demonstrations;
- ensure implementation in the classroom of the acquired learning
- provide continuous guidance and support (head teacher, peers, and other staff);
- have the support and participation of the head teacher and other school leaders;
- enable participation through release time;
- provide regular meetings for problem solving;
- fit within the context of the local community and school culture; and
- fit within the broad, long-term professional development and school improvement program.

This list might also be used as the basis for making an evaluation of a professional development program. Mathison (1992) suggests that feedback informing facilitators on the modes of presentation, involvement, relevance, adequacy of facilities, and instructors etc., is valuable. However, she states that an effective evaluation must also investigate whether attitudes and practices of participants have actually changed for the better, and whether these changes are manifested in classroom and school practices and processes.

Mathison (1992) states that in general terms, a good evaluation of an inservice teacher education program should:

- adopt an explicit standard to good inservice teacher education against which any particular inservice program can be judged



(issues of applicable content, relevance, practicality, good modeling, a long-term development approach, valuing teachers' professional competencies, a supportive institutional context, recognizing and accommodating the multiple purposes of why teachers undertake the inservice programs, etc.);

- value the effects of inservice programs on teachers' needs for professional experiences;
- expect and appreciate inevitable differences among teachers and schools in efforts to change educational practices, and take a more longitudinal perspective on educational change that might occur as a result of inservice education;
- expand the venue for the evaluation beyond the inservice experience and into the school, classroom, or wherever change might be manifest; and
- require the expenditure of more resources to conduct serious evaluations.

She also presents an array of questions and means for collecting data to evaluate teacher inservice programs in Table 2.

### **Teacher Evaluation as Part of Professional Development**

Evaluations of teacher performance are usually conducted for two purposes: to make judgments about a teacher's performance, and to provide useful information to improve the teacher's instructional practices. A key factor here is the appropriateness of the criteria for the purpose of the evaluation. Peer and self-evaluations are often used to improve teaching proficiency. While supervisor evaluations from principals and other supervisory staff are also helpful in providing development information, these evaluations are also often used as the basis for terminating or retaining teacher employment; for higher salary awards, tenure, promotions, or other career related benefits. The criteria on which these evaluations are made must match the purpose of the evaluation.

#### **Evaluation Criteria for Inexperienced Teachers**

Professional expertise is something that develops with guidance and more teaching and life experiences. New teachers should not be expected to have the same degree of confidence and proficiency as teachers who have been teaching for several years. However, by the time they have an evaluation for licensure, or the equivalent, many of the more developed educational systems have expectations that the new teacher be able to:

- Plan lessons that enable students to relate new learning to prior understanding and experiences;

**Table 2: Evaluation Questions and Data Collection Strategies for Evaluating Teachers**

Aspect of Inservice Program	Evaluation Questions	Data Collection Strategies
<b>Inservice experience</b>	<ul style="list-style-type: none"> <li>■ Is the content correct?</li> <li>■ Are teachers trained as professionals and is their sense of professionalism enhanced?</li> <li>■ Does the inservice provide good role models for teachers?</li> <li>■ Does the inservice accommodate differences among teachers?</li> <li>■ Are multiple purposes of inservice reasonably well served?</li> </ul>	Questionnaires Test of content Interviews Participant observation
<b>Institutional support</b>	<ul style="list-style-type: none"> <li>■ Is it provided?</li> <li>■ What form does it take?</li> <li>■ What institutional barriers exist?</li> <li>■ Is it effective?</li> </ul>	Interviews Observation
<b>Change in teacher conceptualizations</b>	<ul style="list-style-type: none"> <li>■ How do teachers think differently about X?</li> <li>■ How do they think about X?</li> <li>■ Do teachers feel good about themselves and their work?</li> </ul>	Interviews Observation
<b>Change in classroom practice</b>	<ul style="list-style-type: none"> <li>■ Do teachers do noticeably different things in their classrooms?</li> <li>■ Are they able to successfully do different things in their classrooms?</li> </ul>	Interviews Classroom observations
<b>Change in student experiences</b>	<ul style="list-style-type: none"> <li>■ Are students exposed to new and different ideas and activities?</li> <li>■ How do students feel about their experience?</li> <li>■ Are students doing different things?</li> <li>■ Is student learning positively affected by the changes?</li> </ul>	Classroom observations Interviews Tests
<b>Change in organization</b>	<ul style="list-style-type: none"> <li>■ What effect does inservice have on organizational structure?</li> <li>■ What is the effect on organizational climate?</li> <li>■ What is the effect on organizational operation?</li> <li>■ Does the organization contribute to or impede change seen as desirable by teachers?</li> </ul>	Interviews Questionnaires Participant observation

Source: Mathison (1992: 258)

- Develop rapport and personal interactions with students;
- Establish and maintain rules and routines that are fair and appropriate to students;
- Arrange the physical and social conditions in the classroom in ways that are conducive to learning and that fit the academic task;
- Assess student learning using a variety of measurement tools and adapt instruction according to the results; and
- Reflect on their actions and students' responses in order to improve their teaching.

### Collecting Evaluation Data

Armstrong and Savage (1994: 485-510) summarize the following key points from the research that has to do with how data about teachers might be collected. Responsible teacher evaluation incorporates data from multiple sources.

**Peer evaluations** are advantageous because they encourage collegiality among staff and reduce job isolation. Two common types of peer evaluations are peer coaching and mentoring. *Peer coaching* involves groups of individuals voluntarily agreeing to observe each other's teaching, offer advice for improvement, and solve problems together. A relationship of mutual trust and respect must be developed first. Three steps often need to be in place to make the coaching time effective: i) the observation experience needs to be planned beforehand to agree on what the lesson will be about, what the observations will focus on, and how the information will be gathered, etc.; ii) during the observation sufficient, clearly taken notes are recorded in positive terms with the view of supporting the efforts of the teacher; and iii) observations are shared, often with the observed teacher making a self-evaluation first and then brainstorming possible improvements etc. The post-conference should be a sharing of information between two equals. This process takes time and requires a trusting relationship, but when undertaken, it is an effective means for improving instructional practice.

**Mentoring** involves one person—the mentor—usually a more experienced staff member who provides assistance and guidance to another person to grow professionally. As with peer coaching, there must be a relationship of trust and respect as well as adequate time for the mentor to get to know the mentee very well.

**Self-evaluations** require teachers to collect information about their own teaching. This is a non-threatening, nonintrusive means of collecting data. Such reflection is needed to develop professionally as well as to make technical adjustments to lessons and management, etc. However,

because the teaching task can be busy, it is sometimes necessary to have another observer in the classroom to identify particular strengths and weaknesses in instructional practice, particularly for inexperienced teachers. Questions to help focus self-evaluations might include:

- Was my lesson well organized and did it follow a logical sequence?
- How many different students did I involve in the discussion?
- How often and to whom did I provide praise and constructive feedback?
- What did I do when I asked questions and nobody responded quickly?
- What did I do to highlight key points of the lesson?
- Were students actively involved and learning? How do I know this?
- How did I deal with misbehavior?
- What did I do to accept students' ideas and feelings?
- What did I do to make sure students understood tomorrow's assignment?

***Supervisor evaluations*** are more formal sessions and involve another staff member who has authority over the teacher. In general, teachers tend to be more wary of such evaluations because the judgments often affect career opportunities and go beyond providing information for self-improvement. It is advisable to let the teacher being evaluated know the criteria and procedures to be taken during the evaluation.

***Student evaluations*** can provide useful information about instructional effectiveness and the learning environment, although not all researchers agree that this practice is sound. However, to minimize limitations of the sorts of questions asked of school students, and for opinions for which they lack expertise, other sources of information should be used such as project work, essays, and other products in student portfolios that provide examples of what students have learned.

***Teacher portfolios***, like student portfolios, contain a variety of information about performance. Typically, they include curriculum and other materials prepared by the teacher, evaluation information gathered from others, and examples of student work.

## Snapshots of Inservice/ Professional Development Programs

This section provides a series of “snapshot” examples of some of the work presented in this chapter. The examples were too long to place in the main text, but too important not to include.

### 1. Teacher Support Networks: The District Resource Teacher (DRT) Program in Lesotho

(Source: O’Grady 1996)

#### ***Highlights***

- One of the attributing factors for the success of the teacher education program is that it began as an idea from the Ministry of Education rather than by the project, thereby encouraging ownership and motivation.
- The program particularly targets small schools in scattered and distant locations where teachers are often very isolated. The schools tend to be multigrade, and have fewer than five teachers. About 700 of the 1200 schools in the country are covered, accounting for 2,000 of the country’s 6,000 teachers.
- Examination results of students in the case schools from year 1988-1989 improved by 17 percent, compared to 6 percent in other schools throughout the country.
- Classroom environments are very conducive to learning, e.g., visual aids are used and displayed on walls, and learning centers are organized in classrooms.
- The DRT’s supportive role is coordinated with that of the Inspectorate, whose current role involves checking on whether the schools are doing their work properly.

#### ***Observations***

- Activities include individual consultations, group workshops for clusters of schools, and dissemination of new curricula produced by the National Curriculum Development Center.
- DRTs sit down with teachers, discuss their perceived difficulties, and offer suggestions to deal with them.
- Typical difficulties involve classroom organization and management for multigrade schools, group work, learning centers, peer learning, and mobilizing community members to help with classroom activities such as reading to mothers.
- DRTs team teach with local teachers and help develop teaching materials.
- DRTs usually visit four times a year for two to three days at a time.
- Additional workshops are organized a few times a year for all the teachers in the schools under the DRT’s care (typically between ten and fifteen schools). These workshops are often held on weekends.

### ***Selection of DRTs***

- The first efforts were rather random—experienced teachers proposed by the district education officers were appointed.
- The second group recruited at the end of the program needed to be qualified, experienced teachers, to have had head teacher or deputy head teacher experience, and be willing to travel frequently and ride horseback where necessary. Efforts were made to try to have a gender balance as well as distribution by district and religion.
- Potential participants needed to write about why they wanted to be DRTs; interviews were conducted, and were followed by training.

***Sustainability:*** When donor support ended, DRTs were given a teacher's salary on a special scale of a resource teacher or a senior resource teacher that was paid by the Ministry of Education. Over seventy DRTs were operating and some were promoted into the Inspectorate. The DRTs are within the teaching service or from the regular government budget. The extra expenditures of the DRT program, mainly travel costs and per diems of DRTs while they are in the schools, are paid through the Ministry of Education.

## **2. Case Study: Institutional Support—Small Grants in Guinea: Finding Ways to Transform Small-Scale Incentives into Widespread Commitment**

(Source: Dembele 1997)

In this program, teachers are provided with the organizational support they need to take responsibility for their professional development and to improve their teaching practice and student learning. Initially, teachers are helped to write a proposal for a grant competition to secure funding for a teacher-learning project. For selected projects, ongoing training and support is provided to help teachers carry out this work. The organizational support of the program and what the teachers did is as shown in the table on the following page.

In order to get teachers involved in the program, the following additional support was provided:

- Useful and user-friendly teacher guides helped teachers with initial proposal writing.
- Three-day workshops for all teachers explained the philosophy and procedures of the program and guided them through their proposal writing.
- The regional coordinator of the pilot region used statistical data such as number of teachers in various schools and distance between schools, to organize teams of teachers within and across schools to discuss similar problems in the teaching-learning process.



**Table 3: Guinea Small Grants program**

Organizational Support	Grant Activities
Preparation of proposed writing guide	Participated in repeated consultation and tryouts. Committed to participating in grant competition.
Creation of teacher teams and organization of workshops for all teachers	Started writing grant proposal with facilitators' assistance but content was left to teachers. Continued writing proposal and submitted it to prefectural jury by a set date.
Follow up visits by facilitators for preliminary proposal writing	Worked on improving proposal to increase chances of being elected by regional jury.
Pre-selection by prefectural juries and follow up visits by facilitators to revise proposals	Submitted finalist proposal to regional jury
Selection by regional jury	Committed to carrying out funded project
Financial procedures and launch/evaluation workshops	Attained better understanding of what was involved in carrying out the project
Delivery of requested material resources (textbooks, professional books, notebooks, teaching materials and other supplies etc.)	Realized that the program is serious and became more motivated to carry out project and to participate in the grant competition the following year
Follow-up visits by facilitators, training visits by resource persons, visits by evaluators	Implemented project teachers designed themselves (including carrying out planned training and evaluation activities, documenting implementation, and submitting required financial and activity reports)
Regional and national dissemination seminars	Made persuasive case for the value of the implemented project
Grant renewal offer	Continued to work on improving teaching and learning

- Close-to-school technical assistance and advice was provided for teachers to maintain the momentum generated by the initial workshops. Each team was visited twice by a facilitator. As a result, all 289 teams that participated in the workshops submitted preliminary proposals.
- Two workshops were offered to help teachers implement their projects. The first three-day workshop—which took place a few days after the regional jury announced which projects would be funded—focused on financial reporting by teacher teams, documentation, and procedures. Participants included the treasurers of all fifty-four successful teams, the business managers of all ten prefectural directorates of education (DPEs), all facilitators, and regional jury members. The workshops ended with a formal contract signing ceremony for the team treasurers, the program’s regional coordinator, and the regional inspector of education. The second workshop took place two months later and focused on project evaluation and other aspects of implementation. Representatives of all funded projects (the remaining teams received consolation prizes), the evaluators, facilitators, and regional jury attended the workshop. During the four-day workshop, various data collection methods were introduced and practiced.
- During the implementation stage, teachers were supported in three ways:
  - follow-up visits by facilitators twice a month during the first term and once a month during the second and third terms;
  - supplemental training visits by the resource persons; and
  - evaluation visits twice a year by evaluators. The visits were paid for by the program. Supplemental training and other inservice training designed by the teachers to help them carry out the program were paid for with part of the small grant.
- To give teachers the opportunity to share their work with colleagues beyond their immediate team, the small grants program funds both a regional seminar and national seminar to share experiences.
- The program offers the possibility of second and third year grant renewal to sustain commitment.

### **3. An Example of the School-Based Training Model: Programs for English Teachers in Egypt**

(Source: Le Blanc 1997)

School-based training (SBT) has been operating since 1994 in several areas of Egypt as pilot programs for English teachers at the preparatory level. The main goal of SBT is to provide inservice training to increase

the effectiveness of teachers through training and mentoring at the school site. The following notes describe the programs, discuss problems and constraints, and present recommendations for linking SBT to the Egyptian inservice training systems to achieve long-term sustainability.

***Constraints*** of the Egyptian education system at the local level that prompted the design of this program include:

- inability or reluctance to allow teachers release time for local training courses;
- lack of sufficient number of inspectors to provide adequate and systematic classroom observation and teacher development;
- a negative focus by inspectors when visiting schools and observing and evaluating teachers;
- lack of cooperation among teaching staff at many schools;
- poor use of the assigned preparatory school text by most teachers; and
- local training days that benefit individual teachers randomly, rather than systematically benefiting all English teachers in a school.

***Targets of the Program Include:***

- effectively using the instructional text in the classroom;
- unifying the teachers in a school and actively encouraging them to work as a team;
- improving communication among Ministry of Education inspectors, senior teachers, school principals, school directors, and parents;
- recognizing, acknowledging, and rewarding individual creativity to create greater job satisfaction, enhanced self-worth, and professional pride in teaching;
- providing a model for the sharing of resources and synergistic efforts to create a greater range of effective strategies for solving problems;
- identifying and actively encouraging those individuals who are models of excellence and potential leaders in their schools;
- providing a forum for participatory input that affects the sense of investment and consequent ownership that all participants develop toward their school;
- encouraging inspectors, teachers, and administrators to develop strategies for resolving conflicts;
- encouraging more active and communicative pupil participation in the learning process; and
- institutionalizing the format of using the school as a unit for inservice teacher training and professional development.

### ***Advantages of School-Based Training***

- Preparatory school teachers receive materials on basic classroom teaching techniques. These materials are based on the instructional text and can be used immediately by the teacher to make classroom teaching more interesting and effective.
- Because the training takes place at the school site:
  - teachers receive training without having to take time off work or traveling long distances;
  - teachers can practice new techniques and discuss the new material with colleagues and senior teachers on a daily basis;
  - the senior teacher (or any interested and motivated teacher) can give classroom demonstrations using SBT activities, or attend demonstrations given by other teachers in the school.
- SBT activities increase communication and sharing of ideas among the English teaching staff at participating schools.
- Transferring the SBT activities and ideas to other English classes in a school gives the senior teacher increased responsibility for professional development, and increases the status of the senior teacher.
- Teachers in participating schools develop a better rapport through working together to integrate SBT activities into their classes.
- All teachers in the school receive new material and observe demonstrations (rather than one or two teachers being nominated to attend a local training session).
- SBT provides a positive focus for inspectors' school visits, classroom observations, and meetings with teachers.
- Senior teachers monitor teachers using SBT activities on a day-to-day basis and can thus better assist inspectors on their observation visits.
- Among the most motivated teachers, SBT encourages creative thinking and problem solving.
- SBT involves inspectors as demonstrators, trainers, observers, and evaluators; and it strengthens the relationship between the supervising inspector and the senior teacher in a participating school by focusing on professional development.
- SBT can serve as a link between a centralized "spectrum" type of inservice training course and the local training courses. It is responsive to specific needs and includes schools identified by the inspector general and the inspectors.
- Participating teachers and inspectors are encouraged to make suggestions and revisions, which are then incorporated into the SBT materials.

For the success of this SBT program, the following are essential:

- The inspector general or senior inspector must strongly support the introduction of the SBT project into local schools, want to assist in its

implementation, and keep pressure on inspectors and senior teachers to do the work.

- The inspector general or senior inspector must identify key schools with strong senior teachers (especially in the first year), and make sure that the supervising inspector actively participates in SBT.
- The inspector general or senior inspector and participating inspectors must be willing to implement procedures for quality control of SBT (e.g., attendance at demonstrations, following visits for instructional support, observations and constructive feedback to participating teachers, and encouragement and advice to senior teachers).
- The inspector general or senior inspector and participating inspectors must be willing to meet regularly to discuss SBT, or to include SBT implementation as a discussion item during regularly-scheduled weekly meetings.

**The Proposed Expansion of the Pilot Program to a Three-Year Going-to-Scale Program:**

***Year One:*** Six to ten preparatory schools involved, centrally located, with strong, motivated senior teachers.

1. There is extensive involvement of an inservice teacher advisor, who initially:
  - prepares and presents the SBT orientation and four demonstrations;
  - plans follow-up meetings with inspectors and observation visits with inspectors to participating schools, and meetings with senior teachers;
  - provides ongoing constructive feedback to teachers who use SBT in classes; and
  - meets regularly with inspector general or senior inspector and participating inspectors to assess SBT progress.
2. Inspector general, senior inspectors, and inspectors must be willing to attend SBT orientation and four demonstrations, and meet with the inservice teacher advisor to discuss SBT implementation.
3. Participating inspectors closely monitor SBT schools to make sure senior teachers have distributed SBT materials and demonstrated the activities for other teachers; inspectors focus on observing teachers using SBT activities during classroom observations.
4. Inspectors and inservice teacher advisors make school visits together between demonstrations to observe teachers using SBT materials in the classroom, meet with senior teachers and other teachers to give constructive feedback regarding the implementation of the training and use of materials.
5. The inservice teacher advisor is a role model for participating inspectors.

***Year Two:*** Ten to twenty-four schools; variety of locations in educational zone.

1. Involvement of inservice teacher advisors decreases.
2. Active participation of inspectors increases.
3. Additional preparatory inspectors become involved when schools they normally supervise are included in SBT.
4. Inspector general or senior inspectors and experienced SBT inspectors assist with SBT orientation, and assist new SBT inspectors if necessary.
5. Experienced participating inspectors co-demonstrate SBT material with inservice teacher advisor.
6. Experienced inspectors do majority of school follow-up visits on their own between SBT demonstrations, observe teachers using SBT materials and meet with senior teacher and teachers to give constructive feedback.
7. New participating inspectors and inservice teacher advisor visit some of the schools together; inservice teacher advisor provides role model for new SBT inspectors.
8. Inspectors meet with inservice teacher advisor between demonstrations to discuss school visits, observations, and any problems in training implementation.

***Year Three:*** Incorporate as many more schools in the educational zone as inspector general and senior inspector feel can successfully implement SBT.

1. Almost all preparatory inspectors involved in implementing SBT.
2. Involvement of SBT advisor decreases.
3. Inspectors give orientation and four demonstrations (limited participation of inservice teacher advisor).
4. Outstanding senior teachers assist with demonstrations.
5. Experienced preparatory inspectors assist new supervising inspectors.
6. Periodic school visits by inservice teacher advisor with any new supervising SBT inspectors.
7. Experienced inspectors are completely responsible for SBT follow-up school visits, classroom observations of training implementation, meetings and discussions with school principals and directors, senior teachers and teachers, and the provision of constructive feedback.
8. Inspector general, senior inspectors meet with inservice teacher advisor monthly to discuss school visits, classroom observations, and SBT implementation.
9. For schools that complete the initial SBT training, it is suggested that clusters of schools composed of groups of previously participating schools be established. A few times during the school year,



interested teachers from these schools would be invited to participate in professional development workshops to demonstrate for the benefit other participants how they are adapting the SBT materials and activities to their lessons, share lesson plans and resources etc. Developing a centralized file or library of teacher-produced materials that can be borrowed from and added to is also suggested.

### ***Concerns to Keep in Mind***

- Ensure that the format and advantages of using the school as a unit of inservice training are well understood by all participants.
- Move SBT from an open-ended pilot project to a well defined three-year inservice educational development project.
- Consider local needs, customs, and preferences when implementing SBT.
- Link this type of SBT project to the larger education training system.
- Develop a system of linking local schools that have participated in the SBT project.
- View SBT as a means of promoting community development, in addition to providing a forum for professional development, and improving teachers' use of assigned texts and classroom presentation skills.

#### **4. An Example of School Clusters at Work with Long-Term Professional Development Programs and Partnerships—Australia** (Source: Zeegers 1997)

***Background:*** In response to poor results in the second International Association for the Evaluation of Educational Achievement Science study in South Australia, the state government allocated funds for the development and implementation of a teacher professional development program that would improve the quality and quantity of science and technology taught in primary schools in the state of South Australia.

Two long-term models of professional development are used in the public school system in South Australia. The first is an in-school professional development program that involves the appointment of “teacher coordinators.” All schools are allocated teacher coordinator positions based on the number of students they have. These positions provide teacher release for specific foci that are identified by an individual school. For example, one school may target a subject area such as mathematics, while another may choose issues such as gender equity or behavior management. The coordinator positions are advertised statewide and teachers are invited to apply for the one or two-year positions. In general, the coordinators are released from the

classroom one day per week to develop the school's program, organize the school's resources, and work in classrooms with teachers.

The second model is known as the "Focus School Project," and also operates on a statewide basis. Projects are funded for two to three years. However, because of the intensity of the program and the expenditure involved in teacher release, a limited number of schools can be involved. Schools within the local districts are clustered together to enable joint professional development activities, the sharing of resources, and the dissemination of information. There is generally one focus school selected per district cluster. In projects initiated prior to 1992, the focus schools were selected by the Education Department's district superintendents. These schools were selected because of their experience or expertise in the field. Projects that began after 1991 invited schools to apply. In 1997, there were focus school projects in mathematics, technology, science, literacy, the arts, and students with high intellectual potential.

The three-year Primary Science and Technology Project (Sci-Tec), presented next, was highly successful in attaining its goals. Sci-Tec was a cooperative venture between the South Australian Education Department and the former South Australian College of Advanced Education (now the University of South Australia) between 1988 and 1991. The key principles for the basis of the project were:

- the sharing of the expertise within the group;
- the necessity of developing shared ownership of the project;
- the importance of responding to needs; and
- the establishment of support networks (Education Review Unit, 1991: 1).

Thirty focus schools were identified and two teachers from each of the schools were designated focus teachers. The project management team considered it essential that two focus teachers be appointed by each school because of the collaborative nature of the project, as well as to ensure continuation of the work if one of the teachers left the school during the term of the project. The selection criteria for the focus teachers were that they had highly developed skills working with adults or that they were highly skilled in their subject area.

The project had three phases. In phase one, the focus teachers developed their own classroom practice in teaching science. They then assisted teachers within their own schools to develop their classroom practices. In phases two and three of the project, the focus teachers worked in pairs in schools in their clusters to assist local teachers first to develop their own classroom practice and to develop the skills they

needed to provide inservice training to teachers within their schools. Each phase of the project was unique because it was tailored to the needs of the participants.

The project provided focus teachers with 20 percent release time from the classroom for three years. The focus schools were required to match this release time from their professional development budget. The teachers were provided with additional release time at the beginning of the project to attend a two-week program at the University of South Australia on classroom practice. At the end of phase one, additional teacher release time enabled focus teachers to work on their inservice skills.

Throughout the project, the focus teachers were responsible for:

- developing their own classroom practices;
- identifying the needs and interests of the teachers with whom they worked;
- organizing and maintaining the school's resources;
- facilitating school workshops;
- working with teachers in the school;
- working with teachers from local clusters;
- assisting with the development of a school policy;
- negotiating agendas for the monthly cluster meetings with their focus school colleagues;
- sharing successes and failures at the focus school cluster meetings;
- modeling appropriate practices for teachers; and
- liaising with parents.

### ***Outcomes***

There was little turnover of participants during the three-year project, possibly because of the unprecedented stability in the school system as well as the high regard for the projects. Many of the focus teachers developed their skills to such an extent that they gained promotions both within and beyond their individual schools following the project. Participants' perceived outcomes include:

- development of new teaching methods in all curriculum areas;
- personal gains in confidence and self-esteem;
- continued involvement in support networks;
- higher profile in professional associations;
- a changed view of how students learn;
- improved personal skills in working with adults;
- development of skills in planning and conducting teacher professional development programs;
- increased awareness of the range of curriculum resources; and
- ability to reflect on their own practice.

As a result of the success of this project having a significant effect on teachers, the methodology is being proposed as a national strategy for primary science/technology inservice.

#### 5. An Example of School Clusters at Work: Education Resource Centers—Papua New Guinea

(Source: Bray 1987)

**Background:** In 1980 in the Southern Highlands Province, an education resource center (ERC) was established for the main purpose of providing inservice training and support for teachers. The center maintained 2 staff for administrative and need identification purposes, and provided services initially for 123 primary schools, 6 secondary schools, and 4 vocational centers. The center also maintained a “transit house” attached to the center for up to thirty people from distant regions who might need accommodation. The official functions of the ERC were to:

- conduct inservice training courses;
- provide facilities and resources for teachers to develop their teaching aids;
- provide an education library and construct teaching aids;
- provide a forum for discussion of educational problems;
- participate in aspects of curriculum development and implementation;
- publish materials and an education newsletter; and
- offer interest-free loans to schools for specific educational equipment conduct research and evaluation (Bray 1987: 102).

During the first year of its operation, the ERC held twenty-six workshops, twenty-nine meetings, and made many individual visits to use the library and prepare visual aids. The workshops and meetings, lasting from one to five days included:

- a meeting for review of the education law;
- two provincial secondary school head teachers’ meetings;
- a national inservice training week workshop for secondary school teachers;
- a zonal mathematics workshop;
- a workshop in multigrade teaching methods;
- a workshop for materials supervisors;
- a community involvement workshop;
- a provincial cultural workshop;
- three literacy workshops;
- a district nonformal education officer’s workshop;
- two primary school inspectors’ meetings;

- a youth workshop, and a commerce workshop;
- an integrated/extension workshop;
- an on-the-job training methods workshop;
- a workshop on ways to use spirit duplicating machines;
- an education planning and development committee meeting;
- a Provincial Education Board meeting;
- a Provincial Cultural Council meeting;
- a Highlands Region nonformal education meeting;
- a Health Agencies Board meeting;
- a Provincial government celebration committee meeting; and
- several meetings of the Teachers' Association. (Bray 1987)

**6. An Example of School Clusters at Work: A National Training Week Program—Papua New Guinea: National Inservice Training (NIST) Week**  
(Source: Bray 1987)

**Background:** Every year since 1966, NIST week has occurred during the March–April vacation. Primary, secondary (often by subject specialization), and vocational teachers each form into groups to share ideas and examine particular problems that have been identified by the provincial governments in conjunction with the inspectors and teachers. Since the 1983 evaluation, the links between the NIST week and other school-based inservice work have been strengthened. Schools are required to set aside at least one hour a week for ongoing inservice work under the direction of head teachers. This provides the opportunity to develop knowledge and skills presented during NIST week.

**Typical Grouping of Participants During the NIST Week:** *Primary schools*—divided into zones with ten to fifteen schools each; *secondary schools*—since the provinces only have two to nine schools each, secondary teachers tend to either meet in one center if they have only a few schools, and where there are several schools, teachers divide up by subject specialization; and *vocational centers*—as per secondary schools.

**Content:** Sessions during the training week have focused on: administration, making teaching aids, explanation of syllabus changes, study of teachers' guides, student testing, study of existing syllabuses, programming, teaching methods, and subject knowledge. In the 1983 evaluation, where the views of 300 primary, 120 secondary, and 103 vocational teachers were surveyed, primary and secondary school teachers particularly wanted more time for sessions on administration, making teaching aids, and explanations of syllabus changes. Vocational teachers asked for more time on making teaching aids and sources of funds.

**Finance:** In 1983, approximately US\$39,000 was provided for the training week, with US\$6,500 used for materials and the pre-NIST planning workshop, and US\$32,500 being for the sessions in the main workshop. The cost per teacher during that year was approximately US\$2.80 for this training, but teachers had additional costs for their transportation, accommodation, and extra materials. The training budget was increased to US\$84,500 in 1985, and an additional US\$13,000 was made available for a series of special workshops in financial management for secondary school teachers.

**Coordinators and Instructors:** The training week improved when special workshops were held for coordinators and instructors to improve their planning and presentation skills. Guidelines encouraged by the Inspectorate are centered on good practices identified in the research. Bray (1987: 101) reports that in introducing new materials produced by the national government, the Inspectorate recommended the following:

- Workshops should include practical activities directly related to the classroom use of the new materials. Sessions should not just cover textbooks page-by-page.
- Workshops should stress the common elements of new materials in different subject areas, which helps teachers cope with a range of new items, and promotes subject integration.
- Workshops should contain enough sessions to cover the topic thoroughly.
- Each session should be long enough for teachers to acquire the necessary skills and prepare the desirable aids.
- Workshops should also guide teachers in ways to assess their own and their pupils' progress.

#### **7. An Example of School Clusters at work: Sub-Cluster Programs to Increase Support Effectiveness—Bangladesh**

(Source: Barkat, Rahman, Chakma, and Bose 1996)

**Background:** Cluster training was introduced in 1983 as an experiment to improve teachers' skills. Sub-cluster training, an improved version of this, was introduced in 1992 in four thanas of four divisions, and by 1996 was operating in thirty-six districts.

#### **Objectives**

- to bring together teachers of different schools and create opportunities for sharing ideas and experiences;
- to develop a competitive attitude among the teachers for the overall development of the schools, acquiring experience about various school's problems and solutions, and applying this knowledge;



- to enhance teachers' capability in co-curricular activities, demonstration lessons etc., in addition to leaflet (or module-based) training;
- to ensure attendance of trainers and trainees;
- to make training effective by providing larger discussion groups; and
- to develop harmonious relationships of schools with the community through open discussions in the presence of the members of school management committees and parent-teacher associations.

***Activities in the Training Include:***

- demonstration lessons by a participant teacher followed by feedback by other participants;
- training on academic subjects through a training module known as a "leaflet";
- support visits by supervisors;
- two to three other activities including reciting poems, telling stories, singing songs; and
- open discussion with the participation of the members of school management committee and parent-teacher association representatives.

***An Evaluation of the Subcluster Program Found that:***

1. Organization of sub-cluster training
  - Respondents perceived that the major purpose of the training was to improve the quality of teaching.
  - The head teachers and teachers attended an average of six training sessions since it was introduced. The participation of school management committee in the training was poor, more so in the case of and parent-teacher association members.
  - The commonly used training materials included teachers' guides and manuals followed by leaflets and modules. Chalk and board were the most commonly used teaching aids.
2. Teaching-learning situation under sub-cluster training
  - Instruction tended to be student-centered and participatory.
  - Discussions tended to take place in the training session. Both the head teachers' and teachers' participation in the open discussion was encouraging, while the participation of school management committee and parents and teachers' association members was discouraging.
  - The training was perceived as useful for improving teaching skills.
  - The majority of head teachers and teachers reported that they tried to identify teaching-learning problems and to implement the training in the classroom. However, this was difficult because of

shortages of classrooms, teaching materials and facilities, and teachers.

3. Management and supervision of training

- The training was held in participant schools on a rotational basis.
- The assistant thana education officers paid more frequent visits to schools than any other education officials during the year.
- Visits by other higher education officials were rare if at all.
- Funds for and provision of stationary, training materials, transportation, furniture, and refreshments for the participants was inadequate.

***Strengths and Weaknesses of the Training***

*Strengths*

- new teaching techniques learned;
- greater use made of teaching materials; and
- shared ideas and experiences.

*Weaknesses*

- lack of teaching materials, stationary, transport, furniture, refreshments, adequate numbers of effective trainers; and
- poor planning and implementation.

***Impact of the Training***

- higher student enrollment in the schools where the training took place;
- higher attendance rate, especially of girls;
- lower dropout rate;
- more congenial teacher–student relationships;
- better quality of classroom teaching;
- community involvement still lacking; and
- no effect on preventing early marriage and dowry.

**8. An Example of a Local Teachers' Center Model: Teachers' Resource Center—Pakistan**

(Source: Malik and Mahmud (1996); Annual reports (1994, 1995))

***Background***

Teacher Resource Center (TRC) is a non-profit NGO established in 1986 with the primary aim to improve the quality of children's learning experience through teacher education and development programs. TRC members are schools, organizations, and individuals, and are eligible to attend workshops at subsidized rates. Government school teachers who are unable to pay either membership or course fees are sponsored by TRC or other donors. In 1995, approximately 2,000 participants from 96 schools attended workshops organized by TRC.

***Objectives***

- to bridge the gap between less privileged schools in the public and private sector and affluent private schools by sharing resources, information, and expertise;
- to replace the prevalent culture of competition among schools with one of cooperative development;
- to draw teachers' attention to learning as well as teaching;
- to respond to the needs identified by both teachers and schools;
- to provide a forum for the professional development of teachers and enhance their professional and social status; and
- above all, to help teachers see themselves as life-long learners by shifting the focus from teaching to learning.

***Activities***

- workshops are organized for all levels of the school hierarchy but mainly target teachers and head teachers;
- regular as well as one-off publications are produced, largely dedicated to improving pedagogy;
- special events are organized that provide an opportunity for children, parents, and teachers to take part in a shared activity; and
- a professional library is sustained containing approximately 10,000 items of book and non-book material.

All activities at TRC fall into two categories: core and project. Core activities serve members' needs and are funded through course and membership fees, interest on investments, project handling charges, donations, and grants. Projects, on the other hand, provide TRC an opportunity to work with specific groups or communities—usually low income. Project funding comes from donors and multinationals.

Workshops fall into two categories: general and school-focus workshops. General workshops cater to participants from a number of member schools, while school-focus workshops are individually created for the needs of a particular school, taking into consideration the resources available to it and its teachers' specific needs. Classroom support is also offered as part of school-focus workshops as much as resources allow.

***Types of Workshops Held***

- assessing the school environment in order to meet the needs of preschool children;
- dealing with child abuse;
- improving communication skills in the classroom;
- preparing biological diagrams;
- learning to use Urdu textbooks effectively;

- getting to know basic functions and terminology with computers; and
- developing effective schools.

Projects tend to be both short and long-term. Short-term projects usually involve the development of products like publications, learning and teaching aids, and posters. Long-term projects are at least a year long and generally address capacity building of a specific target audience. Projects include the Early Childhood Education (ECE) Project (1991-1995), and the Initiating Change through Professional Development project (1992-1995), both funded by NORAD. Activities within these projects include multiplier workshops, where eleven participants who had attended the workshop leaders' training in 1994 were supported in organizing and conducting a series of three workshops on ECE, language learning, and mathematical development. Four hundred and five additional teachers' workshops were held on the phonetic method of teaching Urdu reading. An ECE Readiness Bag was developed for teachers of low-income pre-primary schools, the purpose of which was to give teachers ready-made material such as pictures, scientific equipment, beads, and sewing cards for initial activities they could use in the classroom, and subsequently to extend their activities. The bag included a booklet that explained the programs and the materials: school visits and classroom support for instructional advice, distribution of resources such as reading texts, other story books, and educational toys.

***Finance:*** According to the 1996 report, TRC had built up an endowment of approximately US\$240,000. A target of approximately US \$740,000 was needed annually to provide an income that will allow TRC to continue functioning at its 1995 level.

## Conclusion

This chapter has focused on the ongoing professional development that is needed after the initial preparation of teachers. Key elements such as designing support for teachers' current needs, involving teachers and head teachers in the planning and implementation of both short and long-term activities, and checking to see that activities have resulted in a change of practice are essential. Different approaches can be undertaken for different needs and purposes along a teacher's career. However, the lifelong approach with an ongoing school-based program is strongly urged if the main focus is to strengthen teachers' instructional performance and job satisfaction.

## 6. Conclusions and Recommendations

In concluding this report, we would like to highlight three main points. *The first* is that teacher education can make a difference to student achievement, but it depends on the type of education program and support that is put in place. Specific factors such as the years of teacher education (general, initial, and inservice), the teachers' verbal fluency, subject matter knowledge, having books and materials and knowing how to use them, expectations of pupil performance, time spent on classroom preparation, and frequent monitoring and feedback of student progress are some of the key factors identified in the research that have a positive bearing on the quality of teachers' performance and consequently student achievement. Many of these factors were confirmed in the case studies undertaken during the course of this study. Annex 1 provides a framework of relationships and priorities among critical issues affecting teachers' work. Annex 2 provides a summary of the more *and* less effective teacher education strategies that we observed from the case studies.

*The second* is that when teachers are actively involved and empowered in the reform of their own classrooms and schools, even those teachers with minimal levels of education and training are capable of changing the classroom environment and improving the achievement of their students. Conversely, when teachers are ignored, and when reforms come from above or are not connected to the daily realities of the classroom and local environment, even the most expensive and well designed interventions are almost sure to fail. Poorly educated, underpaid, overworked teachers *can* become reflective, empowered professionals.

*The third* is that fundamental changes in the following three areas are required if the quality of teaching is to be significantly improved. Some key recommendations identified from the study are listed.

### 1. System Support



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- Establish commitment in the form of vision, policies, plans, and actions for long-term professional development of teachers even though some crisis management may be required in some communities in the short term.
- Delegate to the school the authority, flexibility, and responsibility to develop relevant programs and school schedules to establish this long-term professional development commitment and plan.
- Define the rights and responsibilities of the various administrative groups within the education system to clarify issues of needed legislation, infrastructure, functions, and communication.
- Allow freedom of professional associations and some form of collective bargaining that is consistent with labor legislation,

involve representatives of these associations in reform discussions, and establish arbitration procedures.

- Develop human resource development strategies that are long-term and ongoing, depend heavily on school-based programs, and link training and upgrading to a career-path structure.
- Hire committed teachers and provide adequate training and support to enable them to do their jobs. While it is preferable to hire teachers with at least nine years of general education (the number is not key, just the need for more general education) and with some teaching training, conditions in many countries prevent this. High expectations should still be held for long-term reform, and human capacity building.
- Consider a range of incentives for different stages of teachers' careers to attract suitable candidates, establish job satisfaction, and improve instructional practice. Incentives can be direct monetary benefits (e.g., teacher salary, allowance and fringe benefits), and indirect monetary benefits (e.g., professional training, teacher guides, textbooks, instructional supervision, subsidized housing, food, or transportation), or nonmonetary benefits (e.g., professional status in the community, location of teaching position, recognition of performance). They must match the needs of teachers if they are to be true incentives.
- Require school supervisors to inform teachers and head teachers of promising teaching practices and assist staff in trying these out.
- Assist schools to provide necessary teaching resources to achieve instructional goals.

## **2. Ongoing Professional Development—The Early Years**

- Reform initial teacher education programs to attract and retain suitable candidates, and then provide the necessary general knowledge foundation, and initial pedagogical and classroom management skills to achieve instructional goals.
- Provide focused instruction for new teachers. Beginning teachers need initial preparation in their subject matter, fluency in the language of instruction, knowledge of how to use instructional materials, and some basic classroom management and reflection skills. Most of these skills are best learned through on-the-job practice with coaching, which can either be done through a traditional preservice program with substantial supervised practice teaching, or with close supervision and ongoing inservice while on the job.
- Consider a range of alternative teacher preparation programs that might be used depending on the local needs and constraints. Programs such as shorter school-based initiatives with ongoing mentoring and support should be considered, particularly in education systems where there is a great shortage of trained teachers.



- Establish an appropriate system of standards accreditation to match the preparation program so that *all* teachers can work towards both high standards and professional status.
- Require teacher education faculty to be active in classroom and school research, model good practices in their own teaching, impart clearly subject pedagogies, have an understanding of how adults and children learn, and take time to reflect with students about teaching practice.
- Establish induction programs. These are essential to guide and support beginning teachers in their first few years of teaching to develop sound teaching practices as well as help retain teachers in the system.

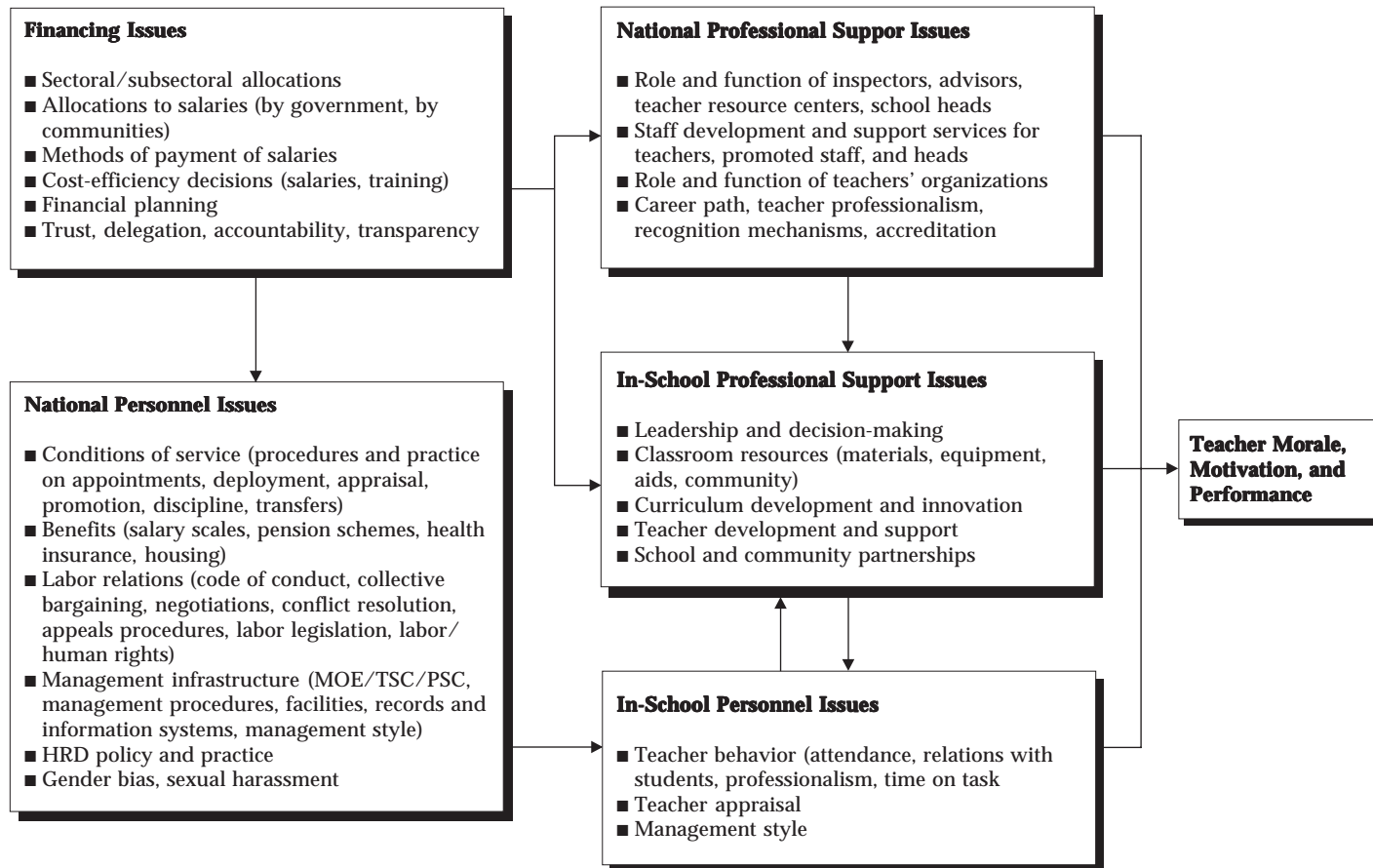
### **3. Ongoing Professional Development: The Years After Initial Preparation**

- Broaden the concept of inservice programs and support to be a growth continuum of ongoing, participatory learning that is closely tied to the realities of classroom needs.
- Focus inservice programs on specific training for instructional management that is appropriate to the current needs of the teacher. Ongoing guidance, support, sharing ideas and concerns among other teachers, having the support of the head teacher, and obtaining sufficient release time to participate in training are some of the key factors highlighted in this study.
- Extend the evaluation of teacher education programs beyond informing facilitators and administrators on the modes of presentation, relevance, adequacy of facilities and instructors, etc. It must involve an investigation of whether attitudes and practices of participants have actually changed for the better and whether these changes are manifested in classroom and school practices.
- Aim classroom supervision by inspectorate supervisors, head teachers, and peers at improving teacher performance in the classroom. (An effective teacher is able to discern from alternatives what enhances student learning, and to that end of raising student achievement the teacher works. What is done, how it is done, in what kind of setting, and for what purpose are all important. Evaluations of teacher performance should help teachers make a better learning environment for students.)



# Annex 1

## A Framework of Relationships and Priorities among Critical Issues Affecting Teachers' Work—Morale and Motivation.



Source: Donors to African Education, Working Group on the Teaching Profession (1993)



## Annex 2

### More and Less Effective Teacher Education Strategies in Developing Countries

It is our hope that all those involved in teaching and its support would try to incorporate the more effective strategies listed as ongoing professional development programs are put in place to improve teaching performance and children's learning.

**Table 4: Teacher Education Strategies in Developing Countries**

More Effective Strategies	Less Effective Strategies
1. Grass-roots, bottom-up, teacher-centered reforms	Ministry of education designed and implemented reforms
2. Teacher centers–teacher circles focus	University or normal school focus
3. Learner-centered emphasis	Teacher-centered emphasis
4. Practice-oriented	Theory-oriented
5. Teacher-designed and written curriculum materials developed from ministry of education curriculum guidelines	Ministry of education-designed and written curriculum
6. Major expenditure of time and money on inservice training	Major expenditure of time and money on preservice training
7. Training primarily in school settings	Training primarily at universities, normal schools or ministries of education
8. Emphasis on actual classroom teaching behaviors	Emphasis on certificates and diplomas
9. Long-term inservice programs with extensive followup	Short-term inservice workshops with little or no followup
10. Teacher training as a life-long career continuum	Teacher training as a one-time preservice phenomenon
11. Teacher trainers with extensive experience at appropriate grade levels	Teacher trainers as university graduates with little or no experience in primary schools
12. Classroom teachers as textbook, workbook, and curriculum guide writers	University professors, with little or no school experience, as authors

13. Appropriate technology and training based on the needs and economic level of the country	Inappropriate technology and training for the needs and economic level of the country
14. Greater decentralization and autonomy at both school and teacher levels	Decentralization at school level, but little or no teacher autonomy or professionalism
15. Teacher as professional with decision-making authority	Teacher as “good employee” with little or no decision-making power
16. Teacher as community leader	Teacher as outsider, with little or no community involvement
17. Students as responsive and active learners	Students as passive recipients
18. Preservice and inservice education coordinated and integrated	Preservice and inservice education separate and unconnected
19. Prestige, salaries, and training of primary school teachers on par with secondary school teachers	Secondary school teachers receive more prestige, salary and training than primary school teachers
20. Teaching is active, constructivist, and cooperative	Teaching is chalk-talk, copying, recitation, and competitive
21. Training groups or cohorts of teachers	Training separate individuals
22. Directors, inspectors, or supervisors trained in clinical supervision	Directors, inspectors, or supervisors trained as administrative clerks
23. Teacher training reforms extensively piloted before broad implementation	Teacher training reforms go to scale without sufficient piloting
24. Teacher education reforms extensively evaluated and researched	Teacher education reforms implemented for political or other reasons with little or no evaluation or research evidence
25. Attempts made for extensive involvement of teacher organizations and unions	Attempts made to ignore or contend with teacher organizations or unions in teacher education reform
26. Administrators of schools actively involved in workshops and trainings	Administrators left “out of the loop” with little or no involvement in the reforms
27. Commitment at all administrative levels for the reforms including ministry of education, legislative and executive branches of government, district and school levels	Commitment only at the top or bottom of the administrative pyramid for the reforms



28. Cost-effective in short and long-term stages of the reform process	Reform is cost-ineffective in either pilot or at mass implementation stage
29. Teacher education reform is an integral part of curriculum or other reforms	Teacher education reform is separate from other attempted reforms in the system
30. Creative, dynamic, even charismatic leadership to get reforms underway	No deeply committed leaders to initiate the reform
31. Emphasis on both <i>process</i> (workshops, teacher circles, classroom observation) and <i>inputs</i> (guides, workbooks, instructional materials to achieve defined student learning outcomes)	Emphasis on either process or input, not both. Student learning outcomes not defined
32. Voluntary participation of teachers, particularly in experimental reforms	Educational reforms are forced on teachers, often resulting in resistance to reform
33. Communication networks in place to spread reform, but not necessarily a high technical approach	Lack of communication, with often only the ministry knowledgeable of the reform
34. Teachers who have mastered both national language of instruction and local language or dialect	Teachers have not mastered both national and/or local languages or dialects
35. Clear, simple educational philosophy that is understood and practiced by the teachers	Academic, theoretical educational philosophy that is often neither understood nor practiced by teachers
36. Teachers who have mastered the use of individualized, small group, and large group instruction	Teachers who are only comfortable with large group instruction
37. Primary school teachers who have mastered at least one major approach to teaching communication skills (reading, writing, listening, speaking)	Primary teachers who have no specific methodology, but through trial and error try whatever seems to work
38. Teachers who have at least one level of education higher than their students, and preferably two levels	Teachers with minimal educational levels attempting to teach students at almost the same level of accomplishment and knowledge
39. Teachers who have mastered appropriate basic skills, academic knowledge, and pedagogical methods	Have seldom been screened on any real criteria of skills, knowledge, or pedagogy
40. Teachers who read and pass on their love of reading to their students	Non-reading teachers, incapable of passing on a love of reading

41. Teacher training with a majority of time in schools spent observing, aiding, and teaching	Teacher training primarily away from school settings
42. Preservice and inservice training in exemplary schools and classrooms	Preservice and inservice training in nearest schools and classrooms, regardless of quality
43. Teacher mentor programs for new teachers and those in need of assistance	New and inadequately trained teachers forced to “sink or swim”
44. Rural teachers from the local community	Rural teachers assigned by central agency; often urban persons who return to city for three to four-day weekends
45. Trainers of trainers are practicing teachers and use active methodology, and clinical supervision models	Trainers of trainers are urban, university, or Ministry based bureaucrats or theoreticians, who lecture teachers and castigate them
46. Public-private partnerships are developed to bring businesses into helping the schools	Business community has no role in the schools
47. Local NGOs provide needed training and support	Local, national, and international NGOs have no role in educational reform
48. Rural teachers are given additional support and incentives, particularly those in multigrade classrooms	Urban teachers receive more support, pay, and prestige
49. Teachers are trained to make the best use of academic time	Significant amounts of time are wasted on starting late, holidays, rain days, administrative trivia, discipline problems
50. Teachers work with communities on improvement projects, adult learning, and literacy	Teachers have little training and little or no involvement in their communities
51. Teachers understand the role of self-discipline and internal discipline enough to encourage students	Teachers remain autocratic and even dictatorial in the working with students
52. Teachers are supervised and provided with assistance regularly by school director, inspector, or mentor	Teachers use external threats to control students
53. Teachers practice continuous assessment of students	Teachers are seldom supervised, and then generally for punitive reasons
54. Schools and teachers practice flexible student promotion	Teachers are dependent on summative evaluation at end of semester or year

55. Teachers practice diagnostic student evaluation	Schools and teachers practice automatic student promotion, failure, or retention in grade
56. There is gender equity in teacher selection, pay, promotion, and prestige	Women are systematically discriminated against in teaching positions
57. Gender equity is practiced in schools and classroom	Girls are discriminated against in schools and classrooms
58. Teachers are respected as professionals whose previous experience and knowledge is critical	Teachers are ignored or looked down upon
59. Teaching is no longer an isolated profession, but teachers work together in teams	Teaching is seen as an individual profession, with little or no contact with other teachers
60. Teachers are given a chance to visit and observe other classrooms	Teachers are isolated and never given a chance to learn from other classroom settings
61. A substitute teacher (parent or other adult) system is in place when teacher is absent	Class is dismissed when teacher is absent or left for prolonged times unattended by an adult
62. Teacher training begins with expressed teacher needs and demands	Teacher training begins with theoretical considerations, possibly connected to teacher needs and demands
63. Teachers are given a chance to upgrade their formal education, not just their pedagogical skills	Teachers are given little or no chance to further their education
64. Self-study and self-learning are seen as critical	Only knowledge mediated by the ministry or universities is acceptable



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## Teacher Development: Making an Impact

*by Helen Craig, Richard J. Kraft, and Joy du Plessis; a joint publication of the U.S. Agency for International Development and The World Bank, 1998*

Teacher development should be thought of as an ongoing participatory process tied to the learning needs of children. Teacher development can make a difference to student achievement, but it depends on the type of education program and support that is put in place. Many key factors can contribute to improving a teacher's performance and hence student achievement. This paper reviews these factors, presents case studies of teacher education programs that have been effective, and makes specific recommendations for improving the quality of teaching.

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