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***EQUIP1/AED***  
***Ethiopia Pilot Study of Teacher Professional Development***  
***Annual Report January 2006***



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**Ethiopia Pilot Study of Teacher Professional Development**  
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**Summary and Status of the Study**

The Ethiopia Pilot Study of Teacher Professional Development has goals that are similar to those of the Namibia study, to describe and analyze the ways in which teachers learn and change, with an emphasis on learning more about the impact of teacher inservice professional development. USAID/Ethiopia and the Ministry of Education played a strong role in supporting the study and requesting modification in procedures and design. This intense involvement both strengthened the study and, at the same time, slowed initial implementation. Both USAID and the Ministry are keenly interested in the results of the study and intend to integrate the results into further program planning.

Both USAID and the Ministry insisted on a very formal process of research approval within the Ministry of Education and within the four Regional Education Bureaus, a public bidding process to identify an organization to carry out the research, and the establishment of an Advisory Committee in the MOE to keep lines of communication open among the study implementers, USAID and the MOE. Several aspects of this planning and preparation process, including the pilot testing of the instruments and the ability of the researchers to go to the field, were slowed down by episodes of civil unrest in the country and the closing of the university and the public schools. The data collection in the field, scheduled in the EQUIP1 Work Plan for Year 3 to take place in September and October 2005, could finally be initiated in late December and will be complete by mid January 2006, putting this activity and therefore the overall research schedule behind by about three months.

**Rationale and Focus of the Study**

Improving the quality of education has become an imperative for most education systems, as rapidly expanding enrolments threaten to overwhelm quality gains and progress made in the introduction of reforms in curriculum and teaching. Education quality depends on a complex combination of factors that come together at the school and classroom levels. The most important of these factors is widely understood to be quality of teachers and teaching. Teacher quality itself is the result of a complex process, with inservice professional development shown to have a strong impact on teacher quality (ADEA 2004; ADEA forthcoming; Boyle et al. 2003; Craig et al. 1998; UNESCO 2004). This vision guides the Pilot Study of Teacher Professional Development in Ethiopia which will identify key factors in professional development that lead to improved teacher quality.

The goals of the pilot study are to describe and analyze a range of approaches to teacher professional development and gain understanding of the factors that encourage teachers

to learn, change and improve their practice. The study focuses primarily on the role of inservice teacher professional development programs in overall teacher learning.

The recently conducted grade 4 and grade 8 national student assessments in Ethiopia indicate that teacher inservice professional development is correlated with improved student learning at both grade levels.<sup>1</sup> Although the student assessments indicate a correlation, they do not explain the complex process through which teachers learn and improve through professional development, nor do they help us understand what kinds of professional development are most effective in improving teacher practice or how good teacher practice translates into student learning.

The Pilot Study of Teacher Professional Development is designed to add explanatory power and depth of understanding to the critically important finding of the student assessments by examining how teachers learn and change, with a particular focus on the impact of inservice professional development.

### **Study Goals and Guiding Questions**

The goal of this pilot study is to analyze and describe the ways in which teachers learn and change, with an emphasis on learning more about the impact of teacher inservice professional development programs. The following questions will guide the study:

- How do teachers construct their concepts of quality of education?
- How do these constructions of quality change over time?
- What influences changing constructions of quality?
- What is the relationship between teachers' constructions of quality and their practice?
- What factors of teacher development and teacher learning have the greatest impact on change and improvement of practice?
- What is the influence of teacher professional development programs, especially ongoing cluster- and school-based professional development, in promoting teacher learning, change and improvement of practice?
- How does effective teacher learning lead to good teaching practices and what inferences can we make about how good teaching practices lead to the quality of student learning within the context of a variety of mediating variables?

### **Relevance of the Study**

The study is designed to be of interest to policy makers, planners and program developers who design and implement programs to improve teacher quality both in Ethiopia and in similar countries worldwide. As is outlined below, both USAID/Ethiopia and the Ministry of Education played a strong role in shaping the pilot study in Ethiopia and have shown a keen interest in making sure that the results be widely disseminated and taken

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<sup>1</sup> *Ethiopian Second National Assessment of Grade Four Students (2004); Ethiopian Second National Learning Assessment of Grade Eight Students (2004).*

into consideration in future program planning. Ministries in other countries, USAID and other international development partners should find the pilot study questions and the study results compelling for the following reasons:

- The concept of education quality in Ethiopia is strongly influenced by education policies based on social constructivism and critical theory which emphasize learner-centered education, democratic classroom practice, continuous assessment, and active learning. In Ethiopia, as in Namibia (where another EQUIP1 pilot study with a similar focus is being conducted) and many other countries, the policies are generally understood on a theoretical level, but not successfully practiced in the classroom. This makes the present study of how teachers learn, change, and improve their practice according to national policy an interesting comparison with Namibia. The results should be of wider interest than just Ethiopia and Namibia because of the prevalence of active learning reforms.
- The study will present an analysis of the process of teacher learning within a particular policy context (constructivism, active learning, and learner-centered education) and support context (a continuum of teacher development programs, with a focus on ongoing school-based in-service which is significantly different from that of Namibia) thus providing guidance on particularly effective points of program intervention.
- The conceptual framework for the study may help planners and implementers deepen their understanding of the dynamic processes that lead from teacher learning to good practice to successful student learning, thus providing further guidance for program planning.

### **The Ethiopian Educational Context**

The most important contextual issue for this study is the way in which Ethiopian education policy defines quality of education, quality of teaching, and quality of student learning. As outlined in a variety of policy documents, starting with the New Education and Training Policy (NETP) of 1994 and more recently in documents relating to the Ministry of Education's Teacher Education System Overhaul (TESO) Program, Ethiopian education policies in curriculum and instruction are explicitly based on active-learning, student-centered, and problem-solving approaches associated with constructivism (Government of Ethiopia 1994; Government of Ethiopia 2002). Within this policy context, teachers are now faced with the complex task of ensuring that their students engage in meaningful learning, learn through various forms of active learning, and learn to use higher-order thinking skills. This requires understanding and skills that go far beyond the traditional teacher-centered approaches of the past based on memorization of facts and information.

The present education system in Ethiopia is the culmination of reforms initiated in 1994 through the New Education and Training Policy (NETP). Although the policy has been expanded through a series of subsequent policy initiatives, the NETP is still the guiding philosophy of a more active-learning based approach to curriculum and instruction. The government's policies of decentralization also provide an important context for

understanding education in Ethiopia. Although the country's 11 regions (8 regions and 3 city administrations) agree to broad national frameworks, there is a high degree of autonomy at the regional level in making decisions about the structure and financing of education systems. As a result, there are varying degrees of difference among the regions in both policy and practice.

The Ministry of Education (MOE) has created TESO as the main national framework for promoting improved quality of teaching at the preservice and inservice levels. TESO works to improve teachers' understanding of and ability to implement the active-learning approaches which form the policy base for curriculum and instruction in Ethiopia.

Several partners work together with the Ministry of Education to implement programs related to TESO. For example, the USAID-funded AED/BESO II Program works with the MOE and the Regional Education Bureaus (REBs) to achieve TESO objectives through the support of teacher inservice professional development in 300 clusters of schools (approximately 1,200 schools) throughout the country. The study proposed here is intended to provide valuable information that may be used to suggest promising future directions for these programs.

### **Conceptual Framework**

The conceptual framework for the study is derived from the literature and research on teacher learning as well as from program experience in Ethiopia and elsewhere. It is based on the hypothesis that the dynamic relationships and mediating factors described below influence teacher learning, teacher practice and student learning (Adger et al. 2004; Craig et al. 1998; Darling-Hammond 1998; Darling-Hammond and McLaughlin 1995; Fenstermacher and Richardson 2000; Garet et al. 2001; Leu 2004; Lieberman 1995; Tatto 2000). This complex process is outlined below:

- Teachers' opportunities to learn are critical but they do not translate directly into good practice. Translating the opportunity to learn into good practice depends on a variety of mediating factors - personal characteristics of the teacher, factors of policy, and conditions at the local level. A teacher's opportunities to learn, therefore, combine with mediating factors to determine his or her practice.
- Practice itself is not static; ideally it will change and improve as teachers gain new knowledge and skills, deeper understanding of their students, and increasing confidence and professionalism throughout the years of their practice. Conversely, if teachers become demoralized or complaisant, practice can deteriorate throughout the career of a teacher.
- A teacher's practice, although critical, does not translate directly into student learning. Even the best teacher practice is filtered through a range of mediating school and student factors to determine student learning.

The complex process at the school, classroom and community levels outlined above can be visualized in the following way:

**Teachers' opportunities to learn  
(a continuum of teacher learning)**

- Combine with *mediating factors* at the school level associated with teacher effectiveness:

teachers' understanding of new idea  
teachers' commitment to change  
relevance of curriculum  
enabling policies  
cultural factors  
community support  
school leadership, school climate  
teacher motivation, status, teacher evaluation systems  
level of supervision and support at the school level  
nature of examinations  
resources available to teachers  
gender status and relationships  
power relationships at the school and community level  
etc.

- To create:

**Teaching practices  
(dynamic, always changing and maturing)**

- Combine with *mediating factors* at the school level associated with student learning:

students' abilities, motivation, and prior school experience  
students' and teachers' time on task  
students' and communities' attitudes to education  
socio-economic status of students  
power relationships within the classroom and community  
gender attitudes  
students' health status, cultural factors  
demands for children's labor in the family  
etc.

- To create:

**Student learning  
(learning as defined within an education system)**

Despite the range of mediating factors that stand as help or hindrance between teacher learning and student learning, teachers' opportunities to learn and change are critical and constitute the element in the process that has the strongest impact on quality of student learning. The pilot study described here will focus primarily on the first part of this conceptual framework, attempting to draw relationships between teacher learning and

teaching practices. Further inferences will be drawn between teacher practices and successful student learning.

## **Study Design and Methodology**

### *Overview*

The purposes and design of the study were discussed extensively with the Ministry of Education and four regional state education bureaus and was approved as described below. An Advisory Group has been established at the MOE to advise on the progress of the study and suggest how the results can be used to inform existing professional development programs for teachers. At the insistence of both USAID/Ethiopia and the MOE, the study was put out to bid on a limited tender basis to eleven specialized education research organizations in order to identify the best research organization to carry out the study. The Institute for Educational Research (IER) at Addis Ababa University (AAU), a highly experienced research organization, was selected by a Selection Committee comprised of EQUIP1, BESO II, USAID/Ethiopia, and the Ministry of Education as the organization to carry out the study.

The study is qualitative, consisting of case studies of 24 grade 4 teachers. USAID/Ethiopia was particularly interested in having the study focus in-depth on a limited number of teachers, comprising a mini-case study. The study is being carried out in three focus schools in each of four regional states. The Ministry of Education insisted on the study being carried out in Amhara, Oromia, Tigray, and SNNPR, the four largest regions in the country in order to strengthen the possibility of widespread influence of the study results. A male and a female teacher are being interviewed in depth in each school. In addition to the core in-depth study of 24 grade 4 teachers, an interview is being carried out with the principals of the schools in which they teach and focus-group discussions are being carried out with 6 to 8 grade 4 teachers in each of the 12 focus schools (approximately 84 additional teachers). A quantitative survey will be carried out with approximately 400 grade 4 teachers, 100 in each of the regions. The study, therefore, has both depth and breadth from the qualitative (case studies, interviews and focus-group discussions) and quantitative (survey) dimensions.

This study is designed to focus on the critically important area of educational *process* at the school level, providing “*thick description*” of the perspectives of a small group of 24 individual teachers on how they learn and think and how they put their learning and thinking into practice. This information from these 24 case studies will be compared and triangulated with information from the focus-group discussions with approximately 84 additional grade 4 teachers and the quantitative survey of 400 grade 4 teachers. The study results overall are intended to complement and add an explanatory dimension to the findings of the national student assessments that revealed a correlation between teacher professional development and student learning.

The proposed sample of 24 grade 4 teachers in 12 different primary schools is small, although it is a very large number for case study research. The 24 teachers and schools

have been selected purposively (see below), which is a usual sample-selection approach in qualitative research. The results are expected to be valid since they will demonstrate internal consistency, particularly as a result of the triangulation of data. The results will not be representative or statistically significant, as is the case in most qualitative studies, because of the small sample involved. Because of the depth of information to be provided through the teacher case studies, augmented through information from the focus-group discussions and the quantitative survey, the results of the study should have the power to indicate significant trends in teacher learning and influences on their practice, thus giving information not previously available on how teachers learn and improve the quality of their practice.

### ***Sample size and school/teacher selection***

#### *Schools:*

- The study is being conducted in groups of three schools in each of four regions, Oromia, Amhara, SNNPR and Tigray which include a significant percentage of the Ethiopian population.
- Within each regional group of three schools, one school is in an urban area and two are in rural areas that are not far from the regional capital.
- The study includes, in each region, two schools that are deemed to be more successful, and one that is less successful, using as a proxy for success the recent results on the grade 8 primary leaving examinations. The REBs will select the schools in cooperation with the researchers.
- In each region, two of the schools selected are participating in the USAID/BESO cluster program and the other school is participating only in the more episodic programs, allowing the influence of the cluster inservice program to emerge through the study.

#### *Teachers:*

- Twenty-four grade 4 teachers have been selected for the case studies, two (a male and a female) in each of the 12 schools.
- They all hold certificates or diplomas from a Teacher Education Institution (TEI) and have at least five years of teaching experience in their present school.
- In the analysis of the data, similarities and differences in the professional learning experiences of female and male teachers will be identified.

### ***Data sources***

The core of the study is the 24 case studies constructed from in-depth information gathered from the 24 grade 4 teachers working in 12 school environments, using information from other sources to augment and add depth and context to information gathered directly from the 24 teachers. Data sources for the study are as follows:

- *Twenty-four core (case study) teachers:* Through the use of open-ended interview instruments, the 24 case study grade 4 teachers in 12 focus schools (a male and a female in each school) are being asked to reflect in depth upon how they have

learned and the factors that influence changing and improving practice, the impact of inservice professional development on their practice, and how their concepts of quality relate to their practice.

- *Classroom observations:* Classroom observations of the 24 core teachers will establish a description of each teacher's practice in order to compare the way they describe their practice with how they actually teach.
- *School directors/principals:* Short interviews with the directors of the 12 focus schools are being conducted to gather further information about issues of quality at the school level, school leadership, the principals' role in instructional leadership, inservice programs available to teachers in the school, the creation of communities of practice, and positive school climate.
- *School demographics:* Quantitative information is being collected at each of the 12 focus schools on student, school and community demographics. This includes information on student achievement, using the grade 4 and grade 8 national student assessment information as proxies for overall school quality. It also includes information on demographic and socio-economic factors of the school population.
- *Other teachers in focus schools:* A focus-group discussion is being carried out in each of the schools with a group of 6 to 8 grade 4 teachers, including a total of approximately 84 teachers overall. This is intended to expand the information provided by the case study teachers and be indicative of similarities and differences between the data collected from the case study teachers and other teachers in the school.
- *Accompanying survey instrument:* An accompanying quantitative survey instrument was developed to collect data from a wider group of teachers in additional schools on similar issues - how the teachers think about their practice and what influences improvement of practice. This instrument has been distributed to 100 grade 4 teachers in each of the four regions, equaling a total of approximately 400 teachers surveyed.

The information on trends in teachers' thinking and practice obtained from three of the above sources will be compared and triangulated:

- In-depth interviews with the 24 core grade 4 teachers
- Focus-group discussions with approximately 84 other grade 4 teachers in the 12 schools and interviews with the 12 school principals
- Survey of 400 grade 4 teachers, 100 in each of the four regions

In addition to the above data sources, interviews will be conducted with relevant education officials at the national and regional levels to provide contextual information about education policies in general and teacher professional development programs in particular.

### ***Development of instruments***

Instruments for interviews, protocols for classroom observation, guidelines for focus-group discussions, and instruments for quantitative data collection were developed in accordance with the objectives of the study. EQUIP1/AED worked together with four experienced researchers at IER to develop, refine, and pilot the instruments.

### ***Collection of data***

Four experienced qualitative researchers from IER are spending a minimum of two weeks in each of the four regions collecting data in the three focus schools. IER has selected four highly experienced researchers, senior staff members, who can interview in the four different languages of the four regions. Each of these researchers is responsible for the collection of all data in the region. He (the four are male) is interviewing the core teachers, carrying out classroom observations, interviewing principals, conducting focus-group discussions, managing the distribution and collection of the survey instrument, and collect school demographic data. In each region, the researcher is working closely with the Regional Education Bureau, a member of which will assist in the data collection.

### ***Analysis of data***

An analysis framework is being developed jointly by EQUIP1/AED and IER using approaches suggested by Bogdan and Biklen (2003) and Creswell (2005; 2003). Qualitative information from interviews and focus-group discussions will be analyzed to identify teachers' concepts of quality, teachers' concepts of their practice and how it changes over time, the influence of different learning opportunities on constructs of quality and practice, and the professional development that has had the greatest impact on teacher change and improvement of practice.

Codes will be derived from significant categories of information that emerge from the qualitative data. Issues of importance that emerge across the different interview categories (teachers, school heads, education officials) will be cross-coded for synthesis and comparison. Discussion is under way about whether it will be better to use EC-2 electronic coding software or use mechanical methods of data coding and cross-checking. Quantitative information from the survey of 400 teachers will be analyzed and combined with the qualitative interview data. The information collected on school and community demographics will be analyzed and used as context information.

### ***Collection of background information on education quality as envisioned in Ethiopia's policies and practices***

Document analysis and interviews with various education officers are being conducted to gather background information on the history and the present education policy context in Ethiopia. This includes an examination of policies concerning teacher quality and teacher learning, and the present goals, structures, and implementation strategies for teacher

education and professional development. As a part of this activity, we are analyzing the vision of quality of education, teaching, and learning that is explicit or implicit in the professional development program(s) and develop an understanding of what teachers are meant to do, or do differently, as a result of their participation in different learning opportunities.

### ***Literature review***

The study will be placed in the context of current international literature, theoretical and practical, on effective teacher learning and influences on practice. The literature on modes and stages of effective teacher learning will be included as will the literature on localized/ongoing vs. centralized/episodic teacher professional development. The literature on the development of practice, an internalized individual and communal form of professional identity, will also be reviewed. The whole study will be situated in the context of a dynamic form of constructivism and learner-centered education which is the overarching policy for education in Ethiopia. Further literature may be suggested by the results of the interviews and observations.

### ***Study results and study report***

The result of the data collection and analysis will be one main research report which presents the study results and an overall analysis of which the 24 case studies will be the anchor or central part. IER is committed to working closely with the Ministry of Education Advisory Committee as the research progresses so that, when the final report is produced, it will be well known to the MOE and its results integrated into discussion of future programs.

### ***Information dissemination on the study findings***

It will be important to assure that the study findings are used within the Ethiopian education system as the basis for discussion and reflection on the effectiveness of different approaches to teacher learning. The close cooperation and agreements made between EQUIP1/AED and the MOE as well as USAID/Ethiopia will ensure that this will happen. It is also important that the results of the study be reported back to those who participated in the study and provided information on their teaching practices and their schools through interviews. One of the Regional Education Bureau heads, when approving the study in his region, said that he liked the study and agreed to have it carried out, but only on the condition that the region could be given 25 copies of the final report so that the participating schools and others would know the study results.

### ***Timetable for the study activities***

The following matrix outlines the timetable for study activities, adjusted to accommodate the approval and bidding processes introduced by USAID/Ethiopia and the Ministry of Education. The comments notes points at which further delay took place.

Activity	Scheduled Timing	Comments
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Initiate design approval process with the MOE, USAID, and Regions	June-August 2005	Discussions with MOE and USAID started in May/June; MOE approval process took place in July/August
Select research institution to carry out study through public bidding process	September 2005	Bidding process initiated in September and selection of IER made in October
Develop/modify data collection instruments	September 2005	Took place in October and November, disrupted by civil strife
Identify schools for data collection with REBs	September/October 2005	Took place in December, delayed by civil strife
Identify and train data collectors; conduct pilot	September/October 2005	IER data collectors are well experienced although training took place in November and pilot was conducted in December
Collect information in schools	October – November 2005	Information is being collected in December 2005 and January 2006
Collect information from other sources	October – November 2005	Information from other sources (survey instrument, demographic data) being collected in December/January
Collect background and context information	Throughout	This is ongoing
Analyze data	December 2005 – January 2006	This will take place in February/March 2006
Finish draft of study report	February - March 2006	April 2006
Circulate report to Advisory Committee for comment	March 2006	May 2006
Final study report completed	April 2006	June 2006
Initiate discussions on use of study results with MOE and USAID/Ethiopia	April-May 2006	June 2006 onward

## Relationship to the Cross-national Synthesis of Education Quality

The Ethiopia pilot study is part of a series of pilot studies of education quality factors being carried out under the USAID-funded EQUIP1 Program. The studies presently are focusing on teacher quality (Namibia – EQUIP1/AED), community participation (India – EQUIP1/World Education), and curriculum relevance (Nigeria – EQUIP1/EDC). These pilot studies will be incorporated into the planned EQUIP1 Cross-national Synthesis of Education Quality, a three-year comparative study of key education quality factors, drawing on the results of the pilot studies.

The individual pilot studies and the Cross-national Synthesis are intended to generate in-depth information for policy makers, planners, program implementers, and evaluators on *process* factors at the school, classroom, and community levels that relate to education quality. The pilot study of teacher professional development in Ethiopia will make an important contribution to the Cross-national Synthesis.

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