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***Cross-national Synthesis on Education Quality Report No. 3:
Professional Development and Implementing Active-Learning,
Student-Centered Pedagogies***



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***CROSS-NATIONAL SYNTHESIS ON
EDUCATION QUALITY REPORT NO. 3:
PROFESSIONAL DEVELOPMENT AND IMPLEMENTING
ACTIVE-LEARNING, STUDENT-CENTERED PEDAGOGIES***

by

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INTRODUCTION

This is the third in a series of reports on the Cross-National Synthesis of Educational Quality, a comparative study conducted as part of the USAID-funded, Education Quality Improvement Program 1 (EQUIP1) Leader Award and focused on issues of educational quality at the school, classroom, and community levels across national contexts.¹ As discussed in an extensive EQUIP1-developed literature review:

Educational quality in developing countries has become a topic of intense interest, primarily because of countries' efforts to maintain quality ... in the context of quantitative expansion of educational provision. ... Whether explicit or implicit, a vision of educational quality is always embedded within countries' policies and programs. (Leu and Price-Rom 2006, p. 2)

Leu and Price-Rom (2006, p. 2) state that often the literature is based on an assumption of "consensus ... on what the term means," although, in fact, "approaches to quality can vary widely." For example, Don Adams and colleagues (Adams 1993; Adams et al. 1995) explain that conceptions of educational quality can focus on a variety of *inputs* (e.g., facilities, curriculum), *processes* (e.g., instructional approach and student participation), and/or *outputs* (e.g., student achievement or attainment). And in line with increased attention to teaching and learning processes in discussions of educational quality (see UNESCO 2004; Verspoor 2006), Leu and Price-Rom (2006, p. 2) note that "[m]any countries are simultaneously implementing reforms based on more active approaches to teaching and learning, further challenging education systems and, especially, teachers."

Based on insights derived from this literature review, this third cross-national synthesis report draws on information on educational quality obtained from three EQUIP1-conducted pilot studies: Quality in Education, Teaching, and Learning: Perceptions and Practice in *Ethiopia* (Asgedom et al., 2006); Quality in Education, Teaching, and Learning: Perceptions and Practice in *Namibia* (van Graan and Leu, 2006); and Educational Quality in Islamic Schools in *Nigeria* (Abd-El-Khalick et al. 2006). More specifically, this report presents a comparative analysis of how, if at all, teachers' classroom practices (with particular focus on the use of active-learning, student-centered pedagogies) are consistent with a) teachers' conceptions of educational and teaching quality and b) the content and delivery approach of professional development programs. To clarify, active-learning, student-centered pedagogies can be characterized as involving "minimal teacher lecturing or direct transmission of factual knowledge, multiple small group activities that engage students in discovery learning or problem solving, and frequent student questions and discussion" (Leu and Price-Rom (2006, p. 19). In this third report, we seek to go beyond documenting that an important dimension of professional socialization is "learning to talk" (Bucher and Stelling 1977; Clark 2001) to investigate the ways teachers' classroom practices are perceived by themselves and observed by researchers to have also changed as a consequence of their professional development experiences.² We also examine factors, such as

¹ For a discussion of the contributions and limitations of cross-national, comparative analysis, see Ginsburg (2006b).

² Unfortunately, the pilot studies do not allow us to address another important policy/practice question: whether professional development experiences for teachers not only influence their classroom behavior but also enhance student learning outcomes.

training limitations, material conditions, policy environment, and cultural norms (see Ginsburg 2006a) that constrain teachers' efforts to implement active-learning, student-centered pedagogies.

This third report, thus, builds on the two previous reports. The first report (Barrow and Leu 2006) concluded that there were similarities in teachers' as well as school administrators', parents', and students' conceptions of educational quality; they also hypothesized that teachers' discourse, celebrating active learning and student-centered pedagogies, reflects ideas articulated in policy discourses. The second report (Barrow et al. 2006) concluded that a) there was clear correspondence between teachers' conceptions of educational quality and the ideas expressed in policy discourses;³ b) teachers' conceptions of educational quality (highlighting active-learning, student-centered pedagogies) correspond to the formal and hidden curricular messages they encountered during in-service teacher education programs;⁴ and c) teachers generally reported that their experiences in in-service professional development programs influenced their ideas about educational quality, specifically in conveying the value of active-learning, student-centered pedagogies.⁵

The purpose of the cross-national synthesis reports is to generate information that will assist in understanding stakeholders' conceptions of educational quality, what influences their conceptions, and what implications their conceptions have for their actions in classrooms, schools, and communities. The majority of cross-national studies investigate national policy initiatives, training and other reform-support inputs, and the outputs of reform project interventions (e.g., teacher behavior or student achievement). Few cross-national studies provide "thick descriptions" obtained from open-ended interviews with stakeholders (Alexander 2000). This synthesis, therefore, attempts to illuminate what is going on inside the "black box" – the space in which educators and others think and act in relation to project inputs with consequences for project outputs. This new way of looking at and talking about educational quality should be helpful not only in strengthening the traditionally weak relationship between policy and practice (Farrell 2002) but also in facilitating dialogue between researchers, on the one hand, and policy makers, program designers, and practitioners, on the other (Ginsburg and Gorostiaga 2003).

³ This was particularly the case in the pilot studies conducted in Ethiopia, India, and Namibia. The Nigerian case did not provide evidence of such correspondence, in part because the government policy discourse stressed changes in curriculum (more so than pedagogy) and because the Qur'anic and Islamiya schools involved in the studies are not government schools. An interesting question concerns the focus of (local, national, and international) policy discourse among officials and educators directly or indirectly responsible for organizing Islamic education in Nigeria. This issue is worth exploring, given the longer historical debate within Islamic education regarding the students' role, which is framed around the poles of memorizing versus reasoning (see Günther 2007).

⁴ In most cases, both the content of these programs (the "formal" curriculum) and the processes employed in implementing the programs (the "hidden" curriculum) focused on these reform pedagogies. Note, however, that in the Nigeria pilot study, active-learning, student-centered pedagogies were not as strongly evidenced in teachers' conceptions of educational quality, compared to the findings from the other three pilot studies.

⁵ Note that in Nigeria we lack data to address this question in a direct and in depth manner.

METHODOLOGY

This synthesis uses a comparative case study approach, each of the pilot studies constituting a case study made up of the “bounded system” under study (Merriam 1998; Yin 2003).⁶ A constant comparative method is used to group and compare similar segments of data across countries to determine similarities, differences, and change (Bogdan and Biklen 2003; Creswell 2005). The sampling and data collection approach for each pilot study is described below.

Ethiopia

The USAID/EQUIP1 Pilot Study on Quality in Education, Teaching, and Learning: Perceptions and Practice in Ethiopia (Asgedom et al. 2006) was carried out by the Academy for Educational Development in cooperation with the Institute of Educational Research of Addis Ababa University.⁷ The study focused on teachers’ and principals’ perceptions of quality of education in general, quality of teaching, and quality of learning in four of Ethiopia’s regional states – Amhara State; Oromia State; Southern Nations, Nationalities and People’s State; and Tigray State.

Data collected by the research team included in-depth interviews with core teachers and their principals, focus group discussions with teachers at each focal school, a survey of a wider group of grade 4 teachers, and classroom observations. The researchers interviewed six core teachers in each regional state, two in each of three focus schools – one urban, one semi-urban, and one rural.⁸ The researchers also interviewed principals⁹ in these schools and conducted focus group discussions with eight, grade-4 teachers in each school. The total sample of informants across the four regional states in the in-depth interviews, therefore, was made up of 24 core teachers, 12 principals, and 89 teachers participating in focus groups. In addition, 460 grade-4 teachers, at least 100 in each regional state, completed a survey questionnaire.

The researchers also conducted observations in the classrooms of the core grade-4 teachers who were interviewed. Observations were recorded using either standardized check lists or ethnographic field notes, which were then coded in a manner similar to the categories on the check list.¹⁰ The observations were designed to track teacher and student behavior patterns before and after the implementation of the Continuous Professional Development program and the introduction of more student-centered approaches to instruction through nation-wide reforms.

⁶ The EQUIP1 pilot studies drawn on for this synthesis report were carried out in three very different settings: rural government primary schools in Ethiopia and Namibia as well as traditional *Islamiya* schools in Nigeria.

⁷ The study was led by four senior researchers from the Institute of Educational Research; one researcher collected data in each of the regional states and conducted interviews in regional languages.

⁸ In the selection process, two schools were chosen in each regional state that had some level of participation in professional development activities organized through the USAID Basic Education Program (BEP) which has supported the government’s programs to improve quality of education in Ethiopia since 1995. BEP was formerly called Basic Education System Overhaul Program (BESO I, 1995-2002) and Basic Education Strategic Objective Program (BESO II, 2002-2007, renamed BEP in early 2006).

⁹ Principals in Ethiopia are usually called school directors, although this paper uses the term principal.

¹⁰ Although in conversation during the research, the different researchers designed somewhat different approaches to data collection, depending on the researcher’s own experience, professional background and training. For instance, the researcher in the Amhara region employed an approach that directly yielded quantitative data, while other researchers collected data in a more qualitative form.

Observations focused among other things, on the class size, use of interactive methods, and general interactions between teachers and students.

Namibia

The USAID/EQUIP1 Pilot Study on Quality in Education, Teaching, and Learning: Perceptions and Practice in Namibia (van Graan and Leu, 2006), was carried out by the Academy for Educational Development in cooperation with the Namibian National Institute for Educational Development (NIED), an institution of the Ministry of Education responsible for curriculum development, teacher preservice and inservice programs, and research. The study was guided by questions of how teachers and other stakeholders at the school level perceive quality of education, how perceptions of quality relate to and shape teachers' classroom practice, and what factors of teacher professional development are most influential in supporting teacher quality.

The data were collected via interviews and classroom observations. The research team conducted in-depth, open-ended interviews with a core group of 40 grade-4 teachers as well as other stakeholders – principals, parents, and students – in 20 rural schools in the Oshana and Oshikoto regions of northern Namibia. The teachers and the schools were similar except that 10 of the schools participated in the School Improvement Program (SIP) of the USAID-funded Basic Education Support Programs 2 and 3 (BESII and BES3) and 10 of the schools only participated in the more centralized and episodic professional development provided by the regions and a variety of other donors.

The research team also conducted observations of one lesson on language, science, or mathematics taught by 39 (of the 40) teachers in SIP and non-SIP schools who were interviewed. The observations were recorded in the form of structured field notes. Key themes drawn from the field notes were combined with key themes derived from the interviews and policy documents to construct a matrix of 11 classroom practices, including the following five areas related to active-learning, student-centered pedagogies:¹¹

- *Affective atmosphere*- the tone of the classroom environment and the social interaction between teachers and students
- *Learner involvement*- the level of student participation
- *Cooperative learning*- students working with students in pairs or small groups in order to make meaning of the lesson
- *Elicitation and effective questioning*- the teacher's skill in eliciting information, asking questions, and following up questions to support learning
- *Use of higher-order thinking skills*- the teacher's ability to design activities/ask questions that access higher-order thinking skills

¹¹ The other six thematic areas of classroom practice, which were identified but not included in the discussion here are: a) *physical classroom environment* – the use of physical space in the classroom, cleanliness, organization, and the display of materials around the room; b) *resource use* – the use of materials and resources to support the lesson; c) *reinforcement and feedback* – the teacher uses multiple examples or practice work to reinforce the concept being taught and provides students with feedback on their answers; d) *contextualizing knowledge* – the teacher's ability to make lessons relevant through accessing prior knowledge or connecting material to the real world, e) *written work* – work produced by the learners both in this lesson and in the past; and f) *homework* – homework given for this lesson or the previous day's lesson.

The researchers code their observation data to indicate – for each classroom practice category – whether there was “positive evidence” of the behavior, the behavior was “attempted but with mixed success,” there was “negative evidence” of the behavior, or (in a few cases) the category was “not appropriate/relevant.” In the findings presented later we report the number of teachers/classrooms so categorized and a mean score for each group of teachers on each classroom practice category.¹² This allows us to compare more easily the classroom behaviors of teachers who had participated in SIP and those who did not participate, thus providing an indication of the impact of such professional development activities.¹³

Nigeria

The USAID/EQUIP1 *Pilot Study on Educational Quality in Islamic Schools in Nigeria* (Abd-El-Khalick et al. 2006) was carried out by the Education Development Center.¹⁴ Its purpose was to explore the characteristics and needs of *Islamiya* schools (which teach both traditional Qur’anic and secular subjects), attended by millions of children in Nigeria, in order to determine if there are possibilities to enlist the *Islamiya* schools in the goal of achieving universal basic education. Data were collected in February and March of 2005 by a team of international EQUIP1 staff members and former staff members of the Literacy Enhancement Assistance Program (LEAP), a USAID-sponsored intervention which began in 2002 and ended in September 2004.¹⁵ Data collection focused on 17 *Islamiya* schools on Lagos Island and in Kosofe in Lagos state, in Doma, Keffi and Akwanga in Nasarawa state, and in Kano Municipality and Tsanyawa in Kano state. The data collection instruments included: 1) Teacher Interview 2) Teacher Questionnaire, 3) Head Teacher Questionnaire,¹⁶ 4) Classroom Observation Form,¹⁷ and 5) Classroom Interaction Recorder.¹⁸

¹² To clarify, we treated the “not appropriate/relevant” category as missing data and we computed the mean score as follows: $(n*P + n*M + n*N)/total\ n$, where “n” is the number of teachers categorized as exhibiting positive (P), mixed (M), negative (N) evidence and “total n” is the total number of (SIP vs non-SIP) teachers who were categorized as either positive, mixed, or negative.

¹³ Note that we must be cautious in using this comparison to attribute causal effects of the SIP activities, in part because we do not know how much informal diffusion of skill and knowledge occurred between SIP participants and SIP non-participants. Also keep in mind that with sample sizes for the two subgroups (SIP and non-SIP teachers) equaling 19 or 20, each teacher represents approximately 5% of the respective subsample.

¹⁴ For discussion of earlier, related studies conducted in Nigeria, see Boyle (2006).

¹⁵ The data, thus, enable us to assess self-reports as well as researcher observations of teachers’ classroom practices following the implementation of in-service professional development and other activities implemented as part of LEAP.

¹⁶ This instrument poses more in-depth, open-ended questions about quality and relevance of education, the difference between government and Islamic schools, etc., that inquires about the make-up of the school in terms of students and teachers, quality of education in the school, involvement of the Head Teacher and school teachers with LEAP, educational quality in *Islamiya* schools, school curriculum, nature of student engagement with teaching and learning, and parent and community involvement with school life.

¹⁷ This is a 25 5-point Likert-type item instrument that targets a set of teacher instructional behaviors related to lesson preparation, classroom management and organization, active and student-centered teaching, gender equity, instructional materials and aids, and student evaluation.

¹⁸ This instrument documents the nature of cognitive (memorizing, recalling, and figuring out/explaining) as well as affective (positive, neutral, and critical) interactions in the classroom, as well as the distribution of these interactions among boys and girls and across different areas in the classroom (front, middle, and back).

The interview data were collected in February and March 2005 from a convenience sample of teachers from the 17 *Islamiya* schools, while the questionnaire sample consisted of 57 teachers, 22 of whom also participated in interviews. The teacher interviews involved more in-depth, open-ended questions about quality and relevance of education, the difference between government and *Islamiya* schools, etc. The questionnaire focused on teachers' background and experiences, use of and participation in LEAP's radio programs and bi-monthly training workshops, as well as the make-up of the class and school day.

In February and March 2005 the EQUIP1 team also observed teachers and students in 49 classes using the classroom observation form and in 53 classes using the interaction recorder. All classroom observations took place in the 17 *Islamiya* schools in the three states targeted by LEAP (2002-2004), and most of the teachers observed had participated in the program.¹⁹ The EQUIP1 researchers chose schools from which LEAP staff had previously collected data in order to allow comparison of the findings across time. The classrooms observed during LEAP ranged in number from 35 to 74 over the course of the five observations (conducted between February 2003 and July 2004).²⁰

During both the 2003-4 and the 2005 data collection, researchers used the Classroom Observation Form, a 25-item instrument that requires observers to evaluate teachers on a 5-point scale²¹ with respect to a list of teacher instructional behaviors.²² Nine items from the Classroom Observation Form are examined here as most relevant to the practice of active-learning, student-centered teaching. Of those, four were also used during LEAP, allowing for the comparison of scores on those items among two similar, but not identical, sets of teachers over time. In addition, during the 2005 data collection the research team employed the Classroom Interaction Recorder, which requires observers to document the nature of teacher-initiated, student-teacher interactions during

¹⁹ Of the 49 teachers (34.6% female) observed by the EQUIP1 study, 16 were in Kano, 14 in Lagos, and 19 in Nasarawa. The majority of teachers (59.5%) taught grades 4 or 5, while about 15% and 13% taught grades 3 and 6 respectively. The overwhelming majority of the lessons observed (85%) involved teachers teaching mathematics and English.

²⁰ However, the 35-74 LEAP observations during 2003-4 were conducted in schools in addition to the 17 studied in 2005. Therefore, all 49 teachers observed in 2005 were in schools observed during 2003-4 by LEAP (but were not necessarily the same teachers) and some of the 74 teachers observed in 2003-4 by LEAP were in schools not observed by EQUIP1 in 2005. Thus, paired-sample statistical analyses were not possible. Instead, for the purpose of conducting statistical analyses, the classrooms observed during LEAP and EQUIP1 were assumed to be independent samples representative of all classrooms in the participating states and local government areas.

²¹ Teachers were rated on 25 individual items using a 5-point scale as follows: 1 = "seriously below average," 2 = "below average," 3 = "average," 4 = "good," and 5 = "excellent" (all items are stated in the positive). Rubrics were developed for each item. All researchers were trained during the LEAP program in the use of the instrument and the rubrics. Researchers selected for the EQUIP1 data collection had all used the instrument during LEAP and participated in a brief refresher before the EQUIP1 data collection. Observations were conducted by pairs, with one individual using the Classroom Observation form and the other using the Classroom Interaction Recorder.

²² The 25 items included attention to: a) whether the teacher calls on all or most of the pupils individually during the lesson, b) allows pupils the opportunity to practice what they have learned, c) uses pair work and/or group work, d) uses encouragement rather than criticism, e) uses student-centered teaching strategies in general, f) whether the teacher checks students' understanding, g) provides feedback, and h) includes a student-centered performance phase of the lesson.²²

the class.²³ For a portion of observed time, researchers assessed the cognitive level of interactions, indicating whether students were required to memorize/repeat, recall, or figure out/explain information, while for another portion, they measured the interactions' affective nature, noting whether the teacher's words and/or apparent attitude toward the student were positive, neutral, or critical.

CASE STUDY SUMMARIES

The authors of each pilot study drew on their data and other sources to develop a case summary focusing on the following components: a) teachers' conceptions of educational quality; b) policy discourses within the school/local/regional/national context; c) professional development programs offered in the context; d) perceived influence of professional development programs on teachers' *ideas* about educational quality; e) perceived influence of professional development programs on teachers' *classroom practices*; f) classroom observations focusing on the use of active-learning, teacher-centered pedagogies; and g) interview and other data identifying factors constraining implementation of such pedagogies. The three case summaries (Ethiopia, Namibia, and Nigeria) are presented below, followed by a conclusion in which the cases are summarized and a comparative analysis of similarities and differences is presented.

Ethiopia

Teachers' Conceptions of Educational Quality

Teachers studied in all four regional states reported similar understandings of educational quality, quality teaching and quality learning. Interviews with teachers revealed a focus on input, process, and output factors.²⁴ Below we discuss findings from data collected through individual and focus group interviews as well as through survey questionnaires.

Teachers conceived of educational quality partly in terms of input factors, such as, resources (textbooks, instructional materials, desks), teachers (subject matter knowledge and pedagogical skills), and the community (participation and financial contributions). With respect to process factors, teachers emphasized students asking questions and otherwise participating in classroom activities as indicators of educational quality, while also referring to assessing student performance and employing various teaching strategies and instructional materials. For teachers surveyed, important outcome factors included scoring high on exams, completing homework, achieving promotion to the next grade, and demonstrating what they learned in real life situations, though they gave even more prominence to students' behavior in classrooms, notably how students interact and their participation level.²⁵

²³ The EQUIP1 research team consisted of six Nigerian researchers, all of whom had used a similar tool to collect data during 2003-4, and two international EQUIP1 team members. During the 2005 data collection the Nigerian researchers used the Classroom Observation Form, while the international researchers generally used the Classroom Interaction Recorder.

²⁴ As discussed more fully in Leu and Price Rom (2006), scholars and policy makers have distinguished among *inputs* (e.g., infrastructure and resources, curriculum, textbooks, staffing), *processes* (e.g, teacher behavior, teacher-student interaction, and student-student interaction), and *outputs* (student achievement and attainment).

²⁵ Teachers also alluded to other outcome factors, such as students adhering to school rules and regulations, being punctual, and having good attendance.

Responses to the questionnaire indicate that teachers in three of the four regions believe that involving students in class discussion and having good relations with students are the most important factors of quality teaching, though in Tigray teachers prioritized “improving student achievement.” Teachers surveyed also reported that students’ active participation in class is the most important indicator of student learning, ranked above performance on tests and examinations. The importance given here to students’ reciting in class suggests that having students actively participate in class may be focused on memorization rather than problem-solving or other higher level cognitive learning goals.

Policy Discourse

When Ethiopia emerged from 17 years of rule by the Derg in 1991,²⁶ the country’s infrastructure was devastated and participation in primary education was low and unevenly distributed. Gross enrolment rates in the early 1990s were only about 20 percent, with very little provision outside of urban areas that had been held by the Derg. In a major initiative to address problems related to access, equity, and quality of educational provision, the new government introduced the New Education and Training Policy in 1994 (Transitional Government of Ethiopia 1994). The NETP, supported by articles in the new constitution, sought to decentralize educational authority to the 11 newly created states (based on ethnicity) and called for new paradigms of education based on relevant, active, and student-centered teaching and learning.

The 1994 National Education and Training Policy established the foundation for all subsequent policies (Ministry of Education 2005b) and shaped three subsequent Education Sector Development Programmes providing guidelines for translating policy into action (MOE 1997; 2002b; 2005b). In line with goals of creating “trained and skilled human power at all levels who will be driving forces in the promotion of democracy and [economic] development in the country” (MOE 2005b, p. 5), the programs have focused on expansion of the system, increased access for marginalized children and girls, and reduction of attrition. As the rapid quantitative expansion has occurred, but within extreme resource constraints,²⁷ attention has increasingly been directed toward the issue of quality. Improving curricula, providing textbooks, increasing community participation, and augmenting financing for education are among the strategies pursued to address the perceived decline in the quality of education. Moreover, while all policy documents stress the importance of teachers for promoting learning, the emphasis on improving teacher quality is most prominent in the 2005 Education Sector Development Programme (Ministry of Education 2005b). This document states that teacher preparation will focus on improving the teaching-learning process, with the priorities of introducing active learning, practicing continuous assessment, and managing large classes.²⁸

²⁶ The “Derg” (the “committee” in Amharic) was the Soviet-supported military Marxist/Stalinist regime that overthrew the Emperor Haile Selassie in 1974. After 17 years of armed struggle against the Derg, it was overthrown in 1991 by a coalition of forces.

²⁷ As a result of these efforts to increase access Ethiopia has achieved national gross enrolment rates of 95 percent for grades 1-4 and 80 percent for grades 1-8, although there is still severe imbalance among the regional states (Afar and Somali Regional States, for example, have only around 20% GER for grades 1-8).

²⁸ The Ethiopian discourse in terms of curriculum and instruction has remained primarily on the level of implementing a “problem-solving approach” (often interpreted as students being able to solve immediate problems of their lives rather than using a discovery learning approach or developing higher-order thinking skills) and “relevant education” (emphasizing the use of familiar local references and the practical application of learning) – although neither of these is examined in the grade 8 primary school leaving examination.

In-Service Professional Development Activities

In Ethiopia's decentralized education system both pre-service teacher education and in-service professional development, like other components of the education sector, are funded and implemented (within national guidelines) by the states and, increasingly, the *woredas* (counties). All the states have adopted national policies for the improvement of teachers and teaching, which are presently guided by the Ministry's Teacher Education System Overhaul program created in 2002/2003, within which continuous professional development is to be conducted at the school and school cluster levels.²⁹ In-service education, traditionally centralized at the national or regional level, is now carried out entirely by supervisory personnel of the regional states and, increasingly, the *woredas*. In recent years faculty from the 24 teacher education institutions have also begun organizing school- and school cluster-based professional development programs for teachers in nearby schools.

In contrast to the multiplier or cascade models employed in the past, involving centrally run workshops employing large-group lecture formats, recent professional development programs have favored more decentralized and participatory models – using active-learning approaches for teacher-learners in the workshops. Nevertheless, the implementation of school cluster-based teacher professional development activities has varied across states. For example, programs in Southern Nations, Nationalities and Peoples' Regional State and, especially, Tigray (states where the model was piloted) reach most teachers on a frequent basis; Amhara's programs reach many teachers with excellent ongoing support through its new cluster coordinators, though the coverage varies somewhat;³⁰ and while Oromia has formed its clusters, it has only been able to provide limited support for teachers through its under-staffed and under-funded *woredas*.

There is not a comprehensive in-service curriculum or learning plan at the national level or at any of the regional state levels, although materials and programs developed by the Ministry, the regional states, the colleges, and donor programs generally focus on student-centered education, active learning, continuous assessment, managing large classes, and involving teachers in action research.³¹ In-service workshops held at the school and cluster level vary, but methodologies in general are highly participatory. For example, some of the topics covered in cluster workshops in Tigray in the late 1990s include: changing paradigms in education, relationship between the new curriculum and changing classroom methods, action research, assessment techniques and continuous assessment, and learner-centered methodologies (Gidey 2002). In conjunction with and as a reinforcement of such in-service activities, USAID/BESO and the MOE developed "Self-instructional Teacher's Kits" for grades 1-2 and grades 3-4 that are used in all regional states and contain modules on the following topics: how to help students learn more effectively

²⁹ Not surprisingly, the degree of implementation of these policies varies among the states. The Ministry of Education adopted localized teacher professional development, carried out at the cluster and school levels, as national policy in 2000, based on successful pilots begun in 1998 in Tigray and SNNP with support from USAID/BESOI.

³⁰ Amhara created the position of a cluster support specialist – an "excellent" teacher re-assigned to provide support, conduct programs, and initiate activities for and with all teachers in the cluster of schools.

³¹ For example, see USAID BESO II Project Quarterly Report (October-December 2005, pp. 36-48) for lists of topics included in in-service programs in the 11 regional states.

using active learning methods, continuous assessment in primary schools, and how to manage a large class to promote active learning.³²

Perceived Influence of Professional Development on Teachers' Ideas

Teachers in all four of regions perceived professional development programs as having informed their ideas about education, particularly related to ways to improve the quality of education, their teaching, and student learning.³³ They reported that professional development activities altered their ideas by increasing their understanding of learners and of the learning process in the context of active learning. For instance, in Tigray teachers mention how they began to think about how the whole child could be developed through promoting active learning and increasing student-teacher interactions. In Amhara, teachers report that they gained a better understanding of the problems of students growing up in difficult circumstances and how student-centered and active learning strategies would be more effective in meeting their needs. In the Southern Nations, Nationalities and Peoples' Regional State teachers reported that their professional development activities helped them understand that student-centered pedagogies can be effectively used in academic (as well as non-academic) subjects.

Perceived Influence of Professional Development on Classroom Practice

Teachers in all four regions report that their involvement in professional development programs has helped them improve their lesson planning, produce and use teaching aids, and to shift from being transmitters of knowledge to facilitators of learning, thus motivating students to be active learners.³⁴ Teachers in Amhara maintain that their use of student-centered practices learned through in-service professional development has increased student participation, assertiveness, and awareness in the classroom, and has improved student-teacher relationships, teacher-parent relationships and relations with the community as a whole. Teachers in Oromia particularly value the impact of professional development on communication and experience-sharing with colleagues, while teachers in Tigray talk about the appearance of a new culture of cooperation and collegiality through school- and cluster-based professional development.

Classroom Observations of Active-Learning, Student-Centered Pedagogies

Commentaries on the “realities” of primary school classrooms in the four regions studied in Ethiopia, prior to the implementation of the continuous professional development program interventions, can be summarized as being mainly teacher-directed, with teachers transmitting (often textbook-based) content needed for exams or asking recall-type questions to students who were seated at desks arranged in rows. It was also stated that teachers often criticized students and, in some instances, used corporal punishment for students who did not answer questions

³² The kits also contain subject-based (content and methods) professional development for math, environmental science, English, and natural science.

³³ Similarly, principals note that innovations taught in the cluster-level professional development programs have influenced positively teachers' ideas about active learning and student-centered pedagogies. Moreover, professional development experiences helped to promote a culture of collegiality among teachers, thus enabling an on-going collaboration and exchange of new ideas about teaching and learning.

³⁴ Principals reported that teacher professional development has positively influenced teachers' classroom practice. For example, a principal in Oromia noted that changes in teachers' behavior led to decreased drop-out rates and increased scores on national examinations, while a principal in Tigray stated that in-service programs helped teachers use the outcome-based strategy of teaching, of which continuous assessment forms an integral part.

correctly or who behaved inappropriately.³⁵ While the quality and depth of data available do not enable us to make precise comparisons, the classroom observation data reported below – separately for the four states – offer insights into how, if at all, classrooms may have changed as a result of the teachers and administrators participation in professional development activities.

All six classrooms observed in *Oromia* had a very large number of students, generally double the 45-50 per class prescribed by policy. Moreover, the seating arrangements in five of the six classes observed were in rows facing the teacher. According to the observer, *Oromia* teachers were generally successful in their techniques of asking open-ended questions, giving feedback, relating the lesson to the students' prior experiences, and using multiple real examples in presenting material. However, they were less successful in using interactive group and pair work. For example, in half of the classes students initiated few questions or independently presented information. In five of the classrooms teachers asked questions or gave assignments only to individual students. In the sixth classroom, students discussed assignments in groups, but the goal of the lesson was to arrive at a single, correct answer rather than to analyze and communicate. Moreover, only three of the six classrooms exhibited a positive affective atmosphere, with the teachers showing friendly attitudes toward and respect for learners (e.g., calling on them by their names).

In *Tigray* the researcher reported that the six classrooms observed were resource-poor (e.g., low quality chalkboards). Moreover, although there were enough desks and chairs, some students did not have textbooks. All of the *Tigray* teachers in the study divided their classrooms into small working groups with seating arrangements that allowed students to look at one another. The potential of the new seating arrangement, however, was relatively unexploited as interactive group work was reported to occur in only two of the classrooms observed, while especially in the other four classrooms teachers mainly lectured and posed questions to individual students. For instance, it was reported that one teacher grew "tired" of regulating "spontaneous" answers to questions, and shifted to using a lecture format and asking only "yes" or "no" questions.

In *Amhara*, the rural classrooms were particularly under-resourced and overcrowded. For instance, one school had no ceilings, dusty floors and broken furniture. Generally, the teachers in the study presented material and asked questions, sometimes connecting one day's lesson with what students had learned previously. The teachers observed also gave time to students to make comments or ask questions, and students not only did so, but they also listened to what other students said. At some point in the lesson teachers normally assigned work to groups of students and then had representatives report on their group's work to the class as a whole. With respect to the cognitive level of classroom interaction, two of the six teachers were observed asking students to explain why certain things happen or do not happen, but question posed in all classrooms tended to be focused on recall of information presented. In terms of the affective atmosphere of the classrooms, two of the six teachers were observed to frequently praise students who performed better, while all teachers in the study were reported to handle student misbehavior gently.

³⁵ One of the study's researchers had observed teachers in *Tigray* carrying sticks, claimed that teachers' understanding of education was basically authoritarian, and indicated that parents' involvement in the school consisted primarily of making complaints against teachers' use of overly harsh punishment.

The classrooms observed in both urban and rural schools in *Southern Nations, Nationalities and People's State* were in poor condition, often without doors or windows, and none had any textbooks. Classrooms were very crowded, with enrolments well above the announced government policy of 45-50 students per class. The lessons observed were generally interactive, with teachers giving the class assignments, monitoring group/individual work, and providing frequent and appropriate feedback. Generally, students were enthusiastic and involved in the learning activities. Students read and copied words and statements from the blackboard, and, overall, they “talked and acted” during the classes more than “sat and listened.” Students sat in groups doing assignments and interacted with each other, although the task was often to find the right answers from material that the teacher had presented. With respect to the affective dimension, teachers tended to call students by name, and praised “stronger” as well as “weaker” students for their work and responses to questions.

Challenges for Implementing Active-Learning, Student Centered Pedagogies

The interview data make it clear that teachers participating in the study articulated ideas of educational quality in line with notions of active-learning, student-centered pedagogies. They also indicated that their ideas and (especially in Amhara) classroom practices had been influenced by their experiences in professional development activities. The observational data suggest that after their participation in professional development program some of the teachers are implementing – to varying extents – some of the active-learning, student-centered pedagogical ideas. However, it is also clear from observations that many of the teachers have not been fully successful at implementing this pedagogical approach. In some cases teacher-centered pedagogies still dominate, and even in some classrooms where students were seated in groups, they were generally only interacting with the teacher or what the teacher had written on the chalk board. Moreover, although the affective atmosphere seems to have improved, the cognitive level of the questioning and other learning activities appears to have remained relatively low.

Why is this the case? Certainly, one can identify shortcomings in the length and depth of the professional development programs as well as to the capacities of the educators and students involved. However, attention also has to be directed to the material conditions and policy environment in which even the most knowledgeable, skilled, and motivated teachers seek to practice their profession. With regard to material conditions, the number of students that individual teachers work with in less than spacious and well-resourced classrooms plays a role. For example, teachers interviewed in Amhara, Oromia, and the *Southern Nations, Nationalities and People's State* stressed that poor physical conditions of classrooms (e.g., lack of windows, ceilings and furniture), overcrowded classrooms, and lack of textbooks and other teaching resources were the greatest deterrents to implementing effective teaching and, particularly, active-learning pedagogies. As one teacher in Tigray commented: “In the absence of chairs and desks students cannot learn by sitting on stones. Shortage of resources is very critical. There are no books for English and radio lessons. ... There are no raw materials and tools for preparing locally possible teaching materials.” Of course, some teachers in all regional states, and perhaps more so in the *Southern Nations, Nationalities and People's State*, demonstrate that it is possible, at least for a period of time, to make progress in implementing active-learning, student-centered pedagogies, despite challenges of poor material conditions.

In terms of policy environment, the curriculum and examination system that continues to require students to memorize and give back content knowledge (without needing to develop higher-order thinking skills) constrains teachers’ implementation of active-learning, student-centered

pedagogies. As noted by teachers during interviews, the way the curriculum is organized and the type of questions included in exams make it more difficult for them to devote time in class to organizing group work and other, more participatory activities or to asking students to answer higher cognitive-level questions. Given the curriculum and examination system, they say, there is pressure for teachers to cover as much material as possible and, when there is time, to ask students questions to see if they can recall what they have been taught.

Namibia

Teachers' Conceptions of Educational Quality

When discussing how they conceived of quality education, Namibian teachers identified input, process, and output factors.³⁶ *Input factors* included resources (e.g., sufficient classrooms, textbooks, instructional materials); qualified, competent, and dedicated teachers; as well as cooperation among, teachers, principals, and parents within and among schools. In describing process factors teachers highlighted the importance of learner-centered education, in which learners actively participate, ask questions and contribute to class discussions; continuous assessment to gauge whether students are actually learning and make adjustments to their teaching strategies to reach different children; and making environment conducive to student learning through supportive and friendly interactions and physically attractive and stimulating classrooms. Teachers referenced the following output factors: individual-level cognitive development (gaining reading and writing skills, getting good grades, or passing an exam), individual-level social/moral development (exhibiting good behavior and social skills; being responsible, disciplined, punctual, and respectful; listening well), and the community/society level benefits (learning to contribute to and work for one's community).

Policy Discourse

The South West Africa People's Organization that led Namibia to independence in 1990 used education in its efforts to transform the society, promoting equity and democratic participation. After independence, the government dramatically expanded access to education, achieving primary enrolment rates of nearly 90%, and adopted policies that emphasized constructivist and learner-centered pedagogies (Van Graan *et al.* 2005, p. 19).³⁷ For instance, the government created a new pre-service teacher education program, the Basic Education Teacher Diploma, which like its pre-independence predecessor, was based explicitly on the principles of social constructivism, deep conceptual and situational understanding, and critical pedagogy, and promoted teachers as reflective practitioners, researchers, and social change agents (Dahlstrom 1995, p. 281; NIED 2003; Van Graan *et al.* 2005, p. 65).³⁸

³⁶ Teachers' discussion of educational quality, as well as quality of teaching and quality of learning, tended to be formulaic, repeating the phrases of policies (learner-centered education, knowing learners' needs, relating teaching to learners' environment, etc.) without really explaining those phrases when probed.

³⁷ Even while in exile in the mid-1980s, SWAPO launched the Integrated Teacher Professional Development Programme, a pre-service preparation program based on principles of social constructivism, knowledge integration, conceptual learning, critical and transformative pedagogy, learner-centered and democratic teaching, and reflective practice (Dahlstrom 1991, p. 7).

³⁸ Namibian teachers, including graduates of the new pre-service preparation programs and especially those who were trained during the colonial period or who have only limited professional preparation, have found it difficult to interpret and practice the new education policies, especially in the context of extreme overcrowding and severely limited resources (NIED 2003).

However, within ten years the Namibian education system was being criticized for a) falling short from achieving its goals (NIED 2003), b) ranking at the bottom of a group of southern African countries in SAQMEC (Southern African Consortium for Monitoring Educational Quality) assessments (UNESCO 2004), and c) adopting approaches that do not raise student achievements (World Bank 2005). Concerned with declining quality, the government developed the *Strategic Plan for the Education and Training Sector Improvement (ETSIP) Programme* (GRN 2005), which maintained the constructivist principles but placed more stress on standards, competencies, and testing.³⁹ For example, in the early-1990s the Namibian government's stated that "[e]xaminations are considered to assess only a limited range of achievements and would therefore never be sufficient as our sole indicator of the quality of education" (MEC 1993, p. 37).⁴⁰ In contrast, a decade later the government argued that "[t]he curriculum, the teacher, materials and the learning environment should all be of a high standard. Those standards need to be defined so that the quality of education can be monitored and improved where necessary" (NIED 2003, p. 5).

In-Service Professional Development Activities

Regional education departments in Namibia are responsible for conducting in-service professional development according to national policies. The programs are implemented by the regions, but they are not guided by a consistent national program⁴¹ and little budget is allocated for this purpose.⁴² Generally, in-service professional development programs are organized for teachers working in a cluster of schools, a structure established initially with support from the GTZ (*Gesellschaft für Technische Zusammenarbeit* – Society for Technical Cooperation) (MBESC 2002), with additional support and supervisions provided by Advisory Teachers and Circuit Inspectors. A related strategy, supported by the USAID-funded Basic Education Support Programs carried out in the north of Namibia, introduced a comprehensive School Improvement Program that includes school and teacher self-assessment activities.⁴³ The school and teacher

³⁹ The World Bank has strongly encouraged a focus on assessment in Namibia and the pre-service teacher education curriculum is presently undergoing changes to reflect more attention to standards, competencies, and testing.

⁴⁰ This document continues: "The skills children need to master go beyond mastering basic reading, writing and numbers and the need for learning about citizenship in a democratic society or respect for others' culture and values are realized" (MEC 1993, p. 40).

⁴¹ In part, because many have been implemented through donor-funded projects, most teacher in-service programs in Namibia vary in scope and content and are short lived – lasting only while the project exists and having few major elements incorporated into the education system. Programs include In-service Training and Assistance for Namibian Teachers funded by the European Union and British Council; the English Language Teacher Development Project funded by the British Government; the Life Science Project funded by DANIDA (Danish International Development Assistance); the Namibia Early Literacy and Language Project funded by DfID (Department for International Development); the Upgrading African Languages in Basic Education in Namibia Project supported by GTZ (*Gesellschaft für Technische Zusammenarbeit*); the lower primary teachers in mathematics program supported by the Africa Group of Sweden; and the school management project funded by NORAD (Norwegian Agency for Development) and the Hans Seidel Foundation.

⁴² Namibia's total education budget is overwhelmed by the relatively high salaries that teachers are paid, leaving little budget flexibility elsewhere in the system.

⁴³ The SIP was initiated as a pilot in 2000 in BESII and is now expanding with support from BES3 to all 770 schools in the six northern regions: Caprivi, Kavongo, Oshikoto, Oshana, Omusati, and Ohangwena. In the Namibia Pilot Study, drawn on for this report, 10 of the 20 sample of schools and 20 of the 40

self-assessment process identifies areas in which support is needed for school improvement and teacher professional development, and this information contributes to the design and content of future activities.

The in-service programs, which are organized by regional education departments, use an episodic cascade model, in which selected teachers participate in district- or cluster-level workshops and then are to disseminate what they learned to their school colleagues (without a structured way of implementing or supporting this school-level dissemination). In contrast, the Basic Education Support project-supported in-service programs include *all* teachers in all schools in the focus areas, mainly through the teacher self-assessment element of the School Improvement Program.⁴⁴ Generally, workshops and other professional development activities in Namibia focus on knowledge, skills, and attitudes related to learner-centered education (e.g., basing lessons on learners' knowledge and experiences, actively engaging learners in classroom activities, having learners talk and act more than listen in class, facilitating students' learning by doing, encouraging learners to initiate questions), continuous assessment (e.g., using learning objectives to assess students, giving learners regular and immediate feedback, adapting lesson plans based on assessment), and managing large classes.

Perceived Influence of Professional Development on Teachers' Ideas

Graduates of the pre-service Basic Education Teacher Diploma program reported that that experience informed their thinking about learner-centered education and active learning approaches – e.g., teachers acting as facilitators rather than knowledge transmitters, students being involved in their own learning and interacting with learners – as well as democratic classroom practices (which was described as primarily respecting the opinions of others), continuous assessment, and child development.⁴⁵ Teachers involved in in-service professional development also noted the following ideas that they had acquired during workshops: the need for teachers to be facilitators rather than knowledge transmitters, the possibility of integrating subjects across the curriculum, the value of the use of group work for students, and the importance of teachers reflecting on their own practice.⁴⁶

interviewed teachers (from mainly rural areas of Oshana and Oshikoto Regions) participated in SIP for at least three years.

⁴⁴ An important part of the School Improvement Program is the development of a School Development Plan, which is based on findings derived from a School Self Assessment. The School Self Assessment process engages teachers, principals, and parents in reflecting on questions such as: What are the purposes of education? How can we work with schools to create change? What can be changed? The use of School Self Assessment to develop School Development Plans, based on the model of School Improvement Program, has now been institutionalized as the national policy for all schools in the country.

⁴⁵ Many teachers seemed to appreciate the importance of theoretical knowledge, and that their pre-service preparation helped them apply instructional theories to practice. However, some teachers noted that theory and practice were often far removed from one another – pre-service courses provided no connection between the theory taught and its practical application to practice.

⁴⁶ Teachers who participated in programs organized by regional education departments and those involved in the School Improvement Program (SIP) activities felt that professional development had changed their ideas about teaching and learning. However, some of the non-SIP teachers said most of what they knew about teaching was acquired during their pre-service program (and not their in-service program) experiences.

Perceived Influence of Professional Development on Classroom Practice

Graduates of the pre-service Basic Education Teacher Diploma program noted that they learned how to plan lessons based on learners' prior knowledge, to identify individual learner's problems and apply remediation, to involve students actively in their own learning (individually and in groups), to apply continuous assessment and democratic classroom practices (e.g., showing respect for others). Teachers involved in in-service programs associated with the School Improvement Program reported that they developed skills to plan lessons, use visual aids and games, organize group work, and provide support for at-risk students (described, for example, as students whose families were exceptionally poor, students who came to school hungry, or students orphaned by HIV/AIDS) as well as to work in teams with teacher colleagues and to involve parents in student learning. Teachers participating in other professional development programs organized by regional education departments indicated these experiences helped them to implement learner-centered education practices, including organizing lessons based on activities, using more visual aids, promoting group work, and displaying learners' work.⁴⁷

Classroom Observations of Active-Learning, Student-Centered Pedagogies

Table 1 provides a summary of the classroom observation data collected by the research team in Namibia, identifying the number of (SIP and non-SIP) teachers who were classified as either exhibiting positive, mixed, negative, or no evidence with respect to a particular classroom practice. In addition, a mean score for each subgroup is presented, calculated based on a 1-3 scale (with positive evidence = 3, mixed evidence = 2, and negative evidence = 1).

Note that although there are some interesting and potentially important differences in the mean scores across classroom practice areas,⁴⁸ there are basically no differences between the mean scores of SIP teachers and the mean scores of non-SIP teachers for any classroom practice area. Because of this, it seems that either a) the SIP professional development activities did not influence teachers' practices or b) non-SIP teachers also were influenced (indirectly) by what was being promoted in the SIP professional development activities. Hypothesis "b" (leakage across programs) is reinforced by the data (reported above) indicating that teachers viewed non-SIP in-service professional development activities as also having "helped them to implement learner-centered education practices, including organizing lessons based on activities, ... [and] promoting group work."

⁴⁷ Principals' comments support the teachers' views that both pre-service and in-service teacher professional development experiences contributed to their teachers using learner-centered classroom practices – including using more teaching aids, more "joyful" learning in the form of songs and play, more sharing of ideas among learners – as well as cooperating with other teachers. However, principals who were not involved in the School Improvement Program felt that the available in-service training focused more on rules and regulations than on better teaching, and were less positive about professional development.

⁴⁸ Note that for the learner involvement and affective atmosphere categories of classroom practice the scores are above the midpoint (i.e., 2), while for the questioning and higher-order thinking categories of classroom practice, the scores are below the midpoint on the scale.

Table 1: Summary of Classroom Observations in Namibia

Classroom Practice	Teacher Subgroup	Positive (3)	Mixed (2)	Negative (1)	Not Coded	Mean Score (1-3)
<i>Learner Involvement</i>	SIP	7	9	3	0	2.2
	non-SIP	6	10	4	0	2.1
<i>Elicitation & Question.</i>	SIP	3	6	7	3	1.7
	non-SIP	2	8	9	1	1.6
<i>Higher-Order Thinking Skills</i>	SIP	4	7	8	0	1.8
	non-SIP	4	10	6	0	1.9
<i>Affective Atmosphere</i>	SIP	10	5	4	0	2.3
	non-SIP	11	4	5	0	2.3

With respect to *learner involvement*, that is, the level of student participation during the lesson, the lessons taught by both groups of teachers on average were rated as exhibiting a “mixed” picture, though leaning slightly toward the “positive” evidence category (mean scores = 2.2 and 2.1). That is, on average sometimes there was a moderate level of learner involvement in classroom activities, but other times there was no active participation by the students in class.

With regard to *eliciting information, asking questions and following up questions to support learning*, both groups of teachers on average were rated as exhibiting somewhat “negative” evidence, almost halfway between the “mixed” and “negative” (mean scores = 1.7 and 1.6). That is, on average there was relatively little evidence of such questioning behaviors on the part of either group of teachers.

For the *designing activities and asking questions that access students’ higher-order thinking skills* aspect of classroom practice, both groups of teachers on average were rated as exhibiting a “mixed” picture, though leaning slightly toward the “negative” evidence category (mean scores = 1.8 and 1.9). That is, on average sometimes there was a moderate level of classroom activities and teacher questions that stimulated higher-order thinking skills, but such classroom practice was far from the norm.

With respect to *affective atmosphere of the classroom*, both groups of teachers on average were rated as exhibiting a somewhat “positive” evidence, between the “mixed” and “positive” evidence categories (mean scores = 2.3 and 2.3). That is, on average classrooms observed had relatively positive affective atmospheres.

Challenges for Implementing Active-Learning, Student Centered Pedagogies

The interview data indicated that in general teachers defined quality education in line with an active-learning, student-centered pedagogical approach and that they believed their SIP (and non-SIP) professional development experiences influenced their ideas and classroom practices. However, the observation data indicate that not only have teachers on average only been partially successful in implementing active-learning, student-centered pedagogies, but there are no real differences between teachers who had and those who were directly involved in SIP professional development and other activities. Thus, we have no observational evidence that the SIP in-service

activities had a stronger impact on teachers' classroom practices than did the non-SIP in-service programs.

We should recall that it is possible that both groups of teachers benefited – directly and indirectly – from LEAP activities, that is, there was a “leakage” of active-learning, student-centered pedagogical ideas and practices from SIP to non-SIP programs and from SIP to non-SIP teachers. We should also consider that there are factors (e.g., material conditions) other than the quality and length of professional development activities that might account for the relatively limited extent of implementation of active-learning, student-centered pedagogies by both groups of teachers. But before considering other factors, we should note that during interviews teachers consistently mentioned that they needed more workshops and professional development opportunities to improve their teaching. For example, one teacher stated that “more workshops especially in English, maths, and environmental studies [give] teachers a chance [to understand] learners, e.g., how they behave, how they learn and so on. This issue is not well [addressed] by the college.” In addition, teachers referenced the need for greater cooperation among teachers in sharing ideas and improving their own teaching skills.

As is the case in other contexts, the material conditions within which teachers work may constrain their capacity to implement active-learning, student-centered pedagogies. For instance, during interviews many teachers mentioned the poor physical condition of their classrooms, the lack (or poor quality) of equipment like photocopy machines, as well as the facts that there were not “enough textbooks for every learner” or “enough teaching and learning materials.” Although there is evidence that some teachers are able to implement at least some dimensions of active-learning, student-centered pedagogies, even in the context of material conditions constraints, it seems likely that this factor could negatively affect all teachers' efforts in this direction.

Another factor that teachers believe affects the quality of education that they can provide for their students and, perhaps, the extent to which they can implement active-learning, student-centered pedagogies is what they termed a lack of parental support and cooperation. According to one teacher, “more interaction with parents [will] make them aware of certain things in their child's learning.” Teachers cite that parents do not understand the value of education and, as a result, do not support their children in terms of encouraging their attendance or monitoring their homework. Teachers believe that parental involvement and cooperation with teachers can improve student learning and participation in class overall. “Parental support [will] help with learners with learning problems; ... [for example, they can] teach their children to read at home.”

Nigeria

Teachers' Conceptions of Educational Quality

When asked to describe a quality primary education, the 22 teachers interviewed cited a total of 48 responses. Of these 48 responses, 9 focus on inputs factors (e.g., the school environment, availability of resources), and 9 address process factors (e.g., curricular content and type of subjects taught) and 15 refer to output factors (e.g., test scores, child preparation for future schooling, able to read and write, etc). Only 7 responses call attention to the quality of instruction as a key factor, and the remaining 8 responses highlight that a quality primary education would develop social skills, morality, physical and spiritual development and good citizenship.

Interviewees provided an even greater number of responses (71) when asked to describe the teaching of a “skilled teacher.” These included preparing a good lesson plan (mentioned by 9 of the teachers) as well as giving homework and understanding and using teaching aids (each mentioned by 3 teachers). Of particular interest, there were 16 responses (from 12 teachers) that focused on areas integral to a student-centered teaching approach: a) helping students, establishing friendships with students, being patient with students (each mentioned by 3 teachers); b) using student-centered teaching and using interactive teaching (each mentioned by two teachers); as well as c) encouraging pupil participation in class, using group work, and checking for understanding (each mentioned by one teacher).

Policy Discourse

In the context of “Education for All,” the government of Nigeria is interested in counting children who receive an education in *Islamiya* schools in the tally of those enrolled in and receiving education. For the government to do so, however, the schools must meet some minimum standards in terms of what is taught, that is, implementing the national curriculum. In 2002, as the USAID-funded Literacy Enhancement Assistance Program (LEAP) was getting underway, the government, especially in the Northern Islamic state of Kano, was interested in trying to regulate the Islamic school sector. An Islamic Education and Social Affairs Board had recently been created to help Qur’anic schools become *Islamiya* schools, which resemble the public schools more closely, for instance, by teaching elements of the public school curriculum and giving students exams.⁴⁹ Hence, the notion of quality implicit in the policy discourse regarding *Islamiya* education focuses on students being exposed to the same curriculum content and, to some extent, the same teaching quality that their government secular school counterparts are getting.

In-Service Professional Development Activities

Islamiya schools were included in LEAP, at least partly to involve their teachers in professional development programs, since as employees of non-government schools they were not included in government-run, in-service training programs.⁵⁰ It is important to note that 34 of the 56 teachers interviewed for the pilot study stated that they had participated in LEAP-conducted, in-service activities.⁵¹

The LEAP in-service training program consisted of 11 workshops, focusing primarily on student-centered teaching in English and mathematics in primary grades three to six. The basic notion of educational quality that LEAP espoused was that student-centered instruction would result in better student learning overall. The workshops gave attention to “Lesson Planning for Student-Centered Teaching: Presentation, Practice, Performance (the 3 Ps)” as well as “Six Student-

⁴⁹ *Qur’anic* schools, which were not included in the pilot study, generally are one- or two-room schools, run by a single teacher with apprentices, serving pupils of varying age, focusing on religious subjects almost exclusively. In contrast, *Islamiya* schools tend to group children in age-segregated classrooms, use grade levels, teach more than religious subjects (i.e., they include elements of the public school curriculum), and give students exams. *Islamiya* schools can stretch all the way up through high school, although the ones in this study tended to go up to grade 6.

⁵⁰ In contrast to LEAP, in-service professional development activities, especially those organized through international development projects, tends to be structured as programs for advanced certification and last a year or more, often necessitating teachers to relocate for a year or more to attend a course.

⁵¹ While all of the schools involved in the pilot study were a part of LEAP, of 56 teachers interviewed, 27 cited that they had participated only LEAP in-service activities, 7 named both LEAP as well as other training programs, 12 named only other programs, and 10 reported that they had not been involved in any in-service professional development.

Centered Teaching Strategies” (Multi-level Thinking, Cooperative Learning, Modeling, Multi-Sensory Learning, Student Self-Assessment, and Continuous Assessment). The U.S. and Nigerian staff facilitating the workshops, organized by the Education Development Center, sought to promote student-centered philosophy and practices not only through workshop goals and content, but also through the materials distributed and the activities they implemented as part of – and as follow-on to – the workshops.⁵²

Perceived Influence of Professional Development on Teachers’ Ideas

Of 34 teachers who reported being present for at least one training workshop, 19 named topics that had been covered in the workshops. The most common items named were cooperative learning (9) and multi-level thinking (6). However, the questions posed and their responses do not allow us to say whether what they were exposed to in the workshops influenced their ideas.

Perceived Influence of Professional Development on Teachers’ Classroom Practice

When asked what they would do to improve the quality of education in their schools, head teachers identified teacher professional development as a key factor. For example, almost half (42%) of the head teachers reported that LEAP radio programs facilitated teaching and learning in the classroom and 25% of the head teachers mentioned that the LEAP training materials had a positive impact on teachers, enhancing their content knowledge and teaching skills.

Classroom Observations of Active-Learning, Student-Centered Pedagogies

As noted above, it is possible to track teacher and student classroom behavior over time, because five rounds of observations were made during LEAP (2002-4) and one set of observations were made by EQUIP1 (2005) – all using the Classroom Observation Form. In particular, we can examine changes over time with respect to four items on the form that address elements of active-learning, student-centered pedagogies:

- Teacher calls on all or almost all the pupils individually during the lesson (*calling on pupils*)
- Interactivity occurs between pupils and teacher (*teacher-student interaction*)
- Teacher provides feedback that is specific and assists pupils in finding and/or understanding the correct answer (*feedback and assistance*)
- Teacher uses thinking questions and does not just ask pupils to recall and/or repeat information (*higher-order questions*)

Over the five observation points (2003-4) *Islamiya* school teachers, who participated in LEAP’s professional development activities, improved their performance on all four items. That is, with the exception of a slight dip between the first and second observations,⁵³ the average scores on these four measures of active-learning, student-centered pedagogies increased (see Table 2).⁵⁴

⁵² In addition to the training manuals used in each workshop, LEAP provided in-class interactive radio instruction lessons as well as resource kits containing books, sample student-centered lesson plans, and instructions for developing learning materials from local resources. Moreover, student-centered teaching strategies were modeled in the interactive radio instruction program broadcasts, which were broadcast directly into classrooms three times per week and reinforced the face-to-face workshop sessions..

⁵³ This drop in scores between round I to round II may be attributed to the retraining of the LEAP data collectors between those two rounds.

⁵⁴ Note that these average scores hide considerable variation among teachers in how their performance was rated on these four measures. For example, in the 2005 data collected by the EQUIP1 team, the standard deviations ranged from 0.85 to 0.93 on a five-point scale.

And when the data were collected in February-March 2005, five to six months after LEAP activities ended, observations indicated that on average teachers continued to improve or slipped only slightly in their efforts to implement active-learning, student-centered pedagogies.

Table 2: Summary of Classroom Observations in Nigeria (Mean Scores based on Classroom Observation Form)

<i>Classroom Practice Area</i>	2003 (Feb-March)	2003 (June-July)	2003 (Oct-Nov)	2004 (Feb-March)	2004 (June-July)	2005 (Feb-March)
	1	2	3	4	5	6
<i>Calling on Pupils</i>	2.2	1.5	1.8	2.1	2.5	3.1
<i>Teacher-Student Interaction</i>	2.1	1.5	1.8	3.3	3.7	3.4
<i>Feedback and Assistance</i>	2.1	1.6	1.8	2.6	2.7	3.4
<i>Higher-Order Questions</i>	2.0	1.5	1.7	3.1	3.3	3.2

In regard to the *calling on pupil* item, in 2005 the mean score for teachers was 3.1, a sizeable increase from the 2.5 recorded during the fifth round of LEAP data collection. For the *student-teacher interaction* item, in 2005 the mean score for teachers was 3.4, down slightly from the fifth round ($M=3.7$) but still above the fourth round ($M=3.3$) of LEAP data collection. For the *feedback and assistance* item, in 2005 the mean score for teachers was 3.4, a substantial increase over the 2.7 recorded during the fifth round of LEAP data collection. And for the *higher-order questions* item, in 2005 the mean score for teachers was 3.2, down slightly from the fifth round ($M=3.3$) but still above the fourth round ($M=3.1$) of LEAP data collection.

Recall that a score of 3.0 represents a rating of “average” on any of the items on the Classroom Observation Form, and thus in 2005 teachers as a group scored above average on all four measures. This, of course, reflects that some teachers scored “good” (i.e., 4.0) or above and other teachers scored “below average” (i.e., 2.0) or below, but it also means that there is still room for many teachers to develop further how they implement both behavioural and cognitive-level dimensions active-learning, student-centered pedagogies.

The data collected in 2005 using the Classroom Interaction Recorder enable us to address more fully the cognitive-level dimension of active-learning, student-centered pedagogy. The Classroom Interaction Recorder enables researchers to assess each teacher-directed interaction observed regarding whether it focuses on memorization/repetition, recall, or explanation of content or information. Of the 53 participating teachers, 22 (41.5%) had no interactions during which they asked students to explain or figure out content. Among another subset of teachers (representing 37.8% of the sample), six teachers dedicated up to 10%, six teachers devoted between 10% and 15%, three teachers dedicated between 15% and 20%, and five teachers devoted between 20% and 25% of their interactions with students to higher cognitive level tasks. Moreover, six teachers (11.3%) teachers dedicated between 25% and 50%, while five teachers (9.4%) devoted more than 50% of their interactions with students to higher cognitive level tasks. Another way to look at the

data is to note that of the 1,724 teacher-student interactions observed by EQUIP1 researchers in 2005, over half (882 or 51.2%) led pupils to repeat or memorize information, over a third (589 or 34.2%) involved recalling information, and less than 15% (253 or 14.7%) required explaining or figuring out information.

Challenges for Implementing Active-Learning, Student Centered Pedagogies

The interview data indicated that in general teachers in the *Islamiya* schools studied in Nigeria defined a skilled instructor in terms associated with an active-learning, student-centered pedagogical approach and expressed commitment to implementing such pedagogies. The interview data also signals that many (but not all) of the teachers are familiar with the theoretical concepts and practices associated with active-learning, student centered pedagogies. Additionally, they believed their professional development experiences and other LEAP interventions influenced their ideas and classroom practices in this direction. Moreover, the classroom observation data indicate that the classrooms in which these teachers work have increasingly exhibited both behavioral and cognitive-level dimensions of active-learning, student-centered pedagogy, reinforcing teachers' views of the impact of such experiences.

However, although there was inter-classroom variation, the data collected via the Classroom Observation Form indicate that on average teachers are still only partially successful in implementing this pedagogical approach. This point is strongly reinforced for the cognitive dimension of this pedagogy by the data collected using the Classroom Interaction Recorder. What factors may have constrained teachers in their efforts to implement active-learning, student-centered pedagogies?

First, while there is evidence that teachers' commitment, knowledge, and skills were enhanced through their participation in LEAP professional development activities, the interview data suggest that certain aspects of active-learning, student-centered pedagogies were less firmly in the minds of these educators. For instance, of the six student-centered strategies promoted by the project, four (cooperative learning, multi-level thinking, modeling, and multi-sensory learning) were named by many teachers who were asked to recall topics of the training, while two strategies (student self-assessment and continuous assessment) were not mentioned once among the 34 teachers who reported having attended LEAP professional development workshops. Certainly, almost any teacher could benefit from thinking about and practicing techniques and strategies, particularly since aspects of this pedagogy may not fit well with other aspects of the material conditions and cultural context.

In terms of material conditions, these teachers generally face very limited classroom space, furniture, and other resources to support their teaching. For instance, most teachers were working with over 50 students, often in physically small classrooms. Moreover, of the 17 schools observed by EQUIP1 researchers, 6 (35%) were considered to have an inadequate number of desks and one had no desks, 6 (35%) had no textbooks, and 10 (59%) had no learning aids other than textbooks in evidence. While it is important to note that some teachers were relatively successful in implementing aspects of active-learning, student-centered learning under such conditions, it is likely that even their effectiveness was constrained by their context.

Culturally, Islamic schools have traditionally had a heavy focus on memorization, but mainly in relation to religious texts, the Qur'an in particular (Boyle 2006). While Islamic schools historically taught a wide variety of subjects at higher cognitive levels, which were not based on

memorization, the decline of the Ottoman Empire also brought a decline in education and a diminution of the spirit of inquiry. Hence, the role of memorization as a teaching-learning method was extended into the secular subjects (Eickelman 1992, Fortna 2002, Hourani, 1991, Talbani 1996).

Moreover as traditional Islamic schools have been modernized, they have tended to import pedagogical features from the public schools (e.g., age-segregated classes, lecture style teaching, and examinations), and their traditional Islamic school instructional practices of peer coaching, age-mixed classes, and group work, for example, have fallen by the wayside (Boyle 2004). Thus, teachers in *Islamiya* schools studied here may face the same policy constraints (e.g., curriculum and examination system focused on acquiring content knowledge versus developing social interaction and higher cognitive-level skills.)

SUMMARY

Before summarizing what we believe can be learned from this third cross-national synthesis on educational quality, we want to acknowledge the limitations in the data sources. Samples are relatively small and certainly not selected in ways that represent teachers in each country, let alone teachers globally. Moreover, with the exception of the classroom observations in Nigeria, the data were collected only one time, thus not allowing us to trace changes in conceptions and perceptions over time and experiences. In particular, we do not have in any of the countries studied data on teachers' conceptions or practices prior to the emergence of current policy discourses and prior to their involvement the identified in-service professional development activities.⁵⁵

As with any qualitative or mixed-method research, however, the value of the three pilot studies (and their comparison) is in the insights they may stimulate for scholars, policy makers, and practitioners involved in similar settings. Thus, we encourage readers to reflect upon the general conclusions drawn from the comparison of the four studies, while not taking any of the details as "facts" that can necessarily be generalized to all situations during all time periods in these four, let alone, other societies.

The case studies conducted in a range of school and community settings in specific regions of Ethiopia, Namibia, and Nigeria offer insights into how teachers' conceptions of educational quality and their classroom practices (associated with active-learning, student-centered pedagogies) may have been developed in recent years. Below we will summarize – and then compare – the cases in relation to these points.

Ethiopia

In describing their views of educational quality in interviews and on questionnaires, respectively, teachers in *Ethiopia* mentioned "student participation" and "involving students in the classroom" as indicators educational quality. These teachers' conceptions of educational quality reflect the national policy discourse, calling for a new paradigm of education based on relevant, active, and student-centered teaching and learning and stressing that the way to improve the teaching-

⁵⁵ While such baseline data would be useful, we have sought to fill this gap by drawing on teachers' and other stakeholders' perceptions of the influence that in-service professional development experiences had on teachers' ideas and behaviors.

learning process is by employing active-learning and continuous-assessment strategies. Their conceptions of educational quality also mirror the content of some of the in-service programs, both in their attention to issues of “student-centered education,” “active learning,” continuous assessment, and teachers engaging in action research”⁵⁶ as well as their use of “active learning” approaches in the workshops for teachers.

Furthermore, according to the teachers interviewed, these programs influenced their ideas and their classroom practices (most explicitly stated by Amhara teachers). Not only did they increase their understanding about learners and the learning process in the context of active learning but they also believed that they had been able to translate these ideas into the techniques and strategies they used in their classrooms.

However, based on observations it appears that many of the teachers have not been fully successful in implementing the active-learning, student-centered pedagogical approach. In some cases teacher-centered pedagogies still dominate, and even in some classrooms where students were seated in groups and where some group work occurred, students were still often only interacting with the teacher or what the teacher had written on the chalk board. Moreover, although the affective atmosphere seems to have improved, the cognitive level of the questioning and other learning activities appears to have remained relatively low.

Teachers identified as challenges to implementing more fully active-learning, student-centered pedagogies the large number of students they worked with in inadequate facilities; the limited resources they had available; and the curriculum and examination policies, which were perceived as focusing them on transmitting large quantities of information and not requiring high-level cognitive skills.

Namibia

According to the interviewed Namibian teachers, educational quality includes students actively participating, asking questions, and contributing to discussions. Their conceptions were definitely in line with the policy discourse, which since 1990 had celebrated constructivist and learner-centered approaches to teaching and learning.⁵⁷

Additionally, teachers interviewed mentioned that their ideas about educational quality had been influenced by their experiences in in-service programs, mentioning ideas about teachers as facilitators, student group work, and teachers’ reflecting on their own practice. They also mentioned that pre-service as well as (SIP and non-SIP) in-service professional development programs had helped them, to varying degrees, to involve students more actively (as individuals and in groups) during their lessons.

⁵⁶ It is noteworthy that “action research” represents a process active learning for the teachers (in relation to the in-service instructors guiding their efforts), thus perhaps reinforcing ideas related to active learning being used with school pupils.

⁵⁷ Interestingly, teachers’ did not incorporate newly emphasized elements in the national policy discourse – i.e., standards and testing – which emerged after the World Bank critiques around the turn of the 20th century. Perhaps this can be explained by the fact that in-service programs, including those organized by the USAID-funded project, maintained a strong focus on knowledge, skills, and attitudes concerning learner-centered education (basing lessons on learners’ knowledge and experiences, actively engaging learners in classroom activities, etc.) and continuous assessment.

Classroom observation data showed no differences between SIP and non-SIP teachers, indicating that either both kinds of in-service activities had similar (low or high level) influence on what teachers (and students) did during lessons. Overall, in the classrooms of both groups of teachers there was more evidence of the behavioral and affective dimensions of active-learning, student-centered pedagogy being implemented, while progress on the cognitive dimension was less apparent.

Teachers interviewed noted the following as constraints to their further implementing active-learning, student-centered pedagogies: a) not enough time spent in in-service program experiences, b) large number of students in relatively small and under-resourced classrooms, and c) limited parental support for education in general and this pedagogical approach more specifically.

Nigeria

In Nigeria, while only a small number (7 of 48) of teachers' responses mentioned "quality of instruction" as an element of educational quality, when teachers were asked to describe a "skilled teacher," more responses (14 of 71) listed things that can be considered as components of active-learning, student-centered pedagogy. These included helping students, establishing friendships, being patient, encouraging student participation, and interactive teaching. Moreover, it unclear that even the relatively few references to this pedagogical approach are in line with the national or state discourses on educational quality, in that such discourses appeared to highlight curricular issues in the development of Qur'anic schools into *Islamiya* schools.

Nevertheless, that some teachers' conceptions of educational quality incorporate notions of active-learning, student-centered instructional approaches does reflect the content and processes of the in-service education programs organized through the Literacy Enhancement Assistance Program (LEAP). These programs emphasized knowledge and skills related to student-centered learning in teaching English and mathematics, and reinforced these content messages in the strategies they employed in the workshops and in the materials that were developed for teachers to use in their classrooms.

More than one half of the interviewed teachers who had attended workshops could name particular active-learning, student-centered strategies on which the workshops focused. Thus, there is some evidence that LEAP professional development activities may have influenced their ideas and their classroom practices.

The observational data suggest almost continuous improvement in teachers' implementation of both behavioral and cognitive-level dimensions of active-learning, student-centered pedagogies. Nevertheless, the average level of implementation was only partial, and this could be explained by the relatively short duration of such professional development programs, large student numbers in inadequate facilities, limited instructional and other resources, certain cultural traditions of Islamic education, and current curriculum and exam policies that seem to highlight transmitting information and not developing higher-order thinking skills.

INSIGHTS DERIVED FROM COMPARATIVE ANALYSIS

Educational reform is never easy. This is the case whether the reform is being promoted with the assistance of international projects or pursued solely by local, state/provincial, or national

governments. By looking across the cases on which EQUIP1 pilot studies were conducted provides us with insights into how the reform process unfolds as well as how the reforms might be implemented further (see also Ginsburg 2006b).

In examining Table 3, we can see that particularly in Ethiopia and Namibia, where national policies specifically focus on promoting active-learning, student-centered pedagogy, we can see how knowledge and commitment to this reform of classrooms have been enhanced. In these cases and in Nigeria, where this theme is more clearly articulated in project documents than in government policy statements, in-service professional development activities were organized that highlighted this reform instructional methodology. To varying extents the professional development programs emphasized knowledge, skill, and commitment related to active-learning in their content and, equally importantly, in how they organized and delivered the programs.

Table 3: Cross-Case Summary of Dimensions of Active-Learning, Student-Centered Pedagogy Highlighted across Research Areas

<i>Area</i>	Ethiopia	Namibia	Nigeria
<i>Policy</i>	B	C → ?	?
<i>Prof. Dev. Content</i>	B	B (LK)	B & C
<i>Prof. Dev. Methods</i>	B	B (LK)	B
<i>Perceived Influence</i>	B & C	B/Gr & C	B/Gr (-) & C (-)
<i>Teacher Ideas</i>	B	A & B (LK)	A & B/Gr (-)
<i>Classroom Practices</i>	B/Gr (+ & -)	A & B & C (-)	B & C (-)

“A” = Affective

“B” = Behavior

“C” = Cognitive

“+” = Strong evidence

“Gr” = Group (versus only individual) interactions

“LK” = Basing lessons on learners’ prior knowledge

“?” = Evidence was not clear enough to classify

“-“ = Limited evidence

Note, however, that the behavioral dimension of active-learning, student-centered pedagogy is more often highlighted. For instance, in Ethiopia this is the only dimension reflected – in policy as well as content and processes of the professional development programs.⁵⁸ And although policy statements in Namibia drew attention to the cognitive dimension in the 1990s and the content of professional development programs in Nigeria included a focus on higher-order thinking, the behavior dimension is more consistently evident.⁵⁹

⁵⁸ Moreover, while teachers referenced the cognitive dimension when they discussed how their ideas were influenced by their professional development experiences, it is the behavioral dimension that is evidenced in all research areas in Ethiopia.

⁵⁹ In examining Table 3 we can also note how in Namibia the idea of designing lessons based on students’ prior knowledge, which was emphasized in content and processes of the professional development

The reform process also appears to be functioning well in that many of the teachers in all three country cases report that they acquired ideas relevant to this reform pedagogy and that some of the teachers believed they have at least begun to implement some of the reform pedagogical practices in their classrooms. Interestingly, in all three country cases some (but not all) teachers reported that their ideas and/or practices had been influenced by their professional development experiences with respect to the cognitive as well as the behavioral dimension of active-learning, student-centered pedagogy (see Table 3). Moreover, when the teachers were asked to indicate what they viewed as quality or skilled teaching, many of them in Namibia and Nigeria made reference to the affective dimension of active-learning, student-centered pedagogy (see Table 3).

As noted in the introduction, however, this third report provides us with opportunities to go beyond what teachers learned to think and talk about this reform pedagogy and even beyond what teachers believe they have learned and been able to put into practice in their classroom. The classroom observations provide us with a window on the scene that policy makers and educators are trying to change through their policy reforms and professional development activities. What we can learn from these three cases is that, indeed, there is evidence of some teachers and students interacting in classrooms in ways that reflect at least some aspects of active-learning, student-centered pedagogy.

As summarized in Table 3, while in some classrooms teacher-centered pedagogy still seems to be dominant, other teachers were observed to be implementing the behavior dimension of active-learning, student-centered pedagogy. The affective dimension was observed in Namibia, and in Namibia and Nigeria there was also some evidence of implementing the cognitive dimension of active-learning, student-centered pedagogy, although this dimension was generally less successfully incorporated in classroom practices.

So some progress has been made in implementing this pedagogical reform, and this should be noted. At the same time, the findings presented above indicate there is still a long road ahead, not only to try to reach some teachers whose ideas and practices do not seem to have changed in the direction intended by the reform but also to assist other teachers to the move further toward implementing the reform pedagogy. We should mention, however, for more extensive implementation in classrooms of the affective and cognitive dimensions of this pedagogy to occur it may be necessary that policy makers and professional development providers give more explicit attention to these dimensions.

We also learn from this cross-national synthesis that there were and will continue to be challenges in efforts to promote the adoption or adaptation of active-learning, student-centered pedagogies (see also Ginsburg 2006a). As can be seen in Table 4, there is evidence that increasing the quantity (and perhaps the depth and breadth) of in-service professional development is perceived to be important. Teachers reported a need for further guidance and support, both inside and outside the classroom, with attention mainly being given to the behavioral dimension of this pedagogy. And it is likely that the educators who have been responsible for organizing professional development activities would agree that changing teachers' and students' behaviors in classrooms is a goal that requires longer-term, on-going in-service activities. It goes without

programs, also was included in what the teachers reported as a key element in quality teaching, though the classroom observations did not reveal whether this idea was being put into practice.

saying that this is an area where policy makers and educators (domestic as well as foreign) can decide to devote more resources.

Table 4: Factors Perceived to Enable/Constrain Implementation of Active-Learning, Student-Centered Pedagogy

<i>Influencing Factor</i>	Ethiopia	Namibia	Nigeria
<i>Prof. Dev. Quality and Quantity</i>	Quantity (B)	Quantity (B)	Quantity (B)
<i>Curriculum & Exam Policies</i>	Individual learner (B/Gr); low cognitive level (C)	?	Individual learner (B/Gr); low cognitive level (C)
<i>Material Conditions</i>	physical environment and instructional resources (B) (C?)	physical environment and instructional resources (B) (C?)	physical environment and instructional resources (B) (C?)
<i>Cultural Beliefs and Values</i>	?	Low parental support (A/B/C ?)	Koranic school tradition (C)

“A” = Affective

“B” = Behavior

“C” = Cognitive

“Gr” = Group (versus only individual) interactions

“?” = Evidence was not clear enough to classify

Another factor perceived to be constraining implementation of the reform pedagogy also depends on resource decisions by policy makers and educators, although is a factor that may be more difficult – or at least more costly – to change. This is the material conditions factor, which teachers appeared to link to the implementation of not only to the behavioral but also to the cognitive dimension of active-learning, student-centered pedagogy (see Table 4). As noted, teachers at least believe that a major challenge to implementing fully the reform pedagogy is relatively large number of students they are assigned to teach in classrooms of inadequate size and with insufficient instructional resources. That some teachers have been able to make considerable progress is a sign that material conditions are not an absolute constraint, but even these teachers report that they find it very difficult to engage in active-learning, student-centered pedagogies because of these conditions.

Still another area where policy makers and educators could invest time (and, likely, financial resources) is in connection with curriculum and examination policy (see Table 4). It may be that teachers misunderstand the demands of these two policy areas or it may be that the curriculum and examinations in these (and other) countries discourage, or at least do not strongly encourage, teachers to devote classroom time to engaging students in peer interaction, constructing knowledge, and addressing questions that require higher-order thinking (see also Leu and Price-Rom, 2006). In any case, particularly the teachers studied in Ethiopia and Nigeria tend to see the curriculum and exam systems as contradicting the reform policy calling for them to use of at least the behavioral dimension of active-learning, student-centered pedagogy. Furthermore, the curriculum and exam systems are seen to constrain the extent to which teachers implement the cognitive dimension of this pedagogy. That the teachers in Namibia did not mention the curriculum/examination issue as a constraining factor may provide an opportunity for understanding how differences in systems and policy or differences in perception of such create more space for implementing the reform pedagogies. Unfortunately, our data do not allow us to do more than raise this as an interesting question.

Moreover, the fact that Namibia teachers mentioned limited parental support as a factor constraining their instructional practices actually is related to the curriculum and exam policy issue (see Table 4). While our data do not shed light on exactly why parents are not providing the kind of support that teachers would like to see, it could be that parental support would be higher if teachers seemed to be more focused on transmitting curricular knowledge required by exams than on trying to involve students in activities, group work, etc. At the same time, the issue of parental support, which was not mentioned by Ethiopian or Nigerian teachers as a factor constraining their efforts to implement the reform pedagogy, may reflect the working of cultural factors. That is, even in the event of policy change, aligning the curriculum and exams more with active-learning, student-centered pedagogy, parents might object to or at least not understand and appreciate teachers' pedagogical reform efforts, because of broader cultural notions of adult-youth authority, knowledge, and learning relations (see also Ginsburg 2006a).

This point, of course, is directly related to the cultural issue raised only in the Nigerian case about one of the traditions of Islamic education that stresses memorization of given knowledge versus a more social constructivist view of people of all ages constructing knowledge through social interaction (see Table 4). Two points are important to mention here. First, this is only one tradition within Islamic education, with another tradition seemingly more in line with active-learning, student-centered pedagogy. Second, the memorization tradition has been boosted in part by the winners of the debates among Islamic scholars but also because of the influence of government educational policies that bear about the *Islamiya* schools.

The discussion of what has been learned from this cross-national synthesis on educational quality demonstrates both the potential contributions and the limitations of comparative analysis. The similarities and the differences observed across the three cases offer certain insights, which hopefully are of value to policy makers and educators, but the comparisons also raise questions that we are not able to answer – at least not in this particular study.

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