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



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Summary and Status of the Study

The Namibia Pilot Study of Teacher Professional Development has goals that are similar to the Ethiopia pilot study. Both studies are designed to describe and analyze a range of approaches to teacher professional development and gain understanding of the factors that encourage teachers to learn, change, and improve their practice. The study has a special focus on the role of ongoing localized inservice professional development programs in the overall continuum of teacher learning. The study is being carried out in partnership between EQUIP1/AED and the National Institute for Educational Development (NIED) in Namibia, including involvement of staff from the University of Namibia (UNAM) in aspects of the data analysis. The study includes in-depth information collected from 40 teachers at the grade 4 level in 20 schools in northern Namibia (interviews and classroom observations), 20 primary school principals (interviews), and groups of parents and students at each of the 20 schools (focus group discussions).

All data for the study have been collected and the basic data analysis has been completed. The study report is in draft form. A workshop is presently being organized at NIED and at Ongwediva College of Education (funded by MOE) to discuss the preliminary results of the study. The final research report will be completed by the end of February 2006. Two additional papers are proposed to follow in 2006 based on the data collected in the main study. One paper would consist of two case studies of particularly successful teachers who were part of the original study. NIED wants to collect additional data to learn more about why these teachers are so outstanding. They will fund the additional data collection. This paper should deepen our understanding of quality of teachers and what creates excellence in teaching. The other paper will draw on the data from the focus-group discussions with parents and learners and expand the information available on their perspectives on quality of teaching and learning.

The overall study, therefore, is about three months behind the schedule contained in the EQUIP1 Year Three Work Plan. According to that plan, the final report was expected to be completed in November. Delay has been the result of scheduling problems encountered by NIED. Results of the Namibia study are presently being integrated into the framework for the Cross-national Synthesis of Education Quality along with the other EQUIP1 pilot studies.

Rationale and Focus of the Study

The most fundamental characteristic of high quality basic education is that it leads to good student learning as defined within an education system. As simple as this equation sounds, it is made up of several elusive and highly complex constructs – for example,

quality of education, quality of learning, and quality of teaching. Quality of basic education which leads to good student learning is widely thought to be made up of a variety of interlocking factors of which the most important is good quality of teachers and teaching. Teacher quality itself is the result of a complex process, with inservice professional development shown to have a strong impact on teacher quality (ADEA 2004; ADEA forthcoming; Boyle et al. 2003; Craig et al. 1998; UNESCO 2004). The Pilot Study of Teacher Professional Development in Namibia is guided by this vision and addresses the overall issue of teacher learning and how teacher learning, as a central element of education quality, can best be supported.

Guiding Questions

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

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

Relevance of the Study

USAID and other international development partners should find the pilot study questions and study results compelling for the following reasons:

- The concept of education quality in Namibia is strongly influenced by education policies based on social constructivism and critical theory. These policies emphasize learner-centered education, democratic classroom practice, continuous assessment, and active learning. In Namibia, as in many other countries, the policies are generally understood but not successfully practiced in the classroom. This makes the present study of how teachers learn, change, and improve their practice in line with policies of much wider interest than just Namibia.
- The study will present an analysis of the process of teacher learning within a particular policy context (constructivism, active learning, and learner-centered

education) and support context (a continuum of teacher development programs, with a focus on ongoing school-based in-service) thus providing guidance on particularly effective points of program intervention.

- The conceptual framework for the study may help planners and implementers deepen their understanding of the dynamic processes that lead from teacher learning to good practice to successful student learning, thus providing further guidance for program planning and implementation.

The Namibian Educational Context

An important contextual issue is the way in which Namibian education policy defines quality of education, quality of teaching, and quality of student learning. Namibian education policies are strongly based on social constructivism, critical theory, and democratic education (Dahlstrom (ed.) 2000; Government of Republic of Namibia 1993; Government of Republic of Namibia 2004; Zeichner and Dahlstrom 1999). Learner-centered education and various forms of active learning in which teachers and students are expected to go well beyond the memorization of facts and information through the use of critical thinking and higher-order thinking skills are central to the concept of quality in Namibia. Within this policy context, the study will incorporate the issue of how both the Namibian education system in general, individual teachers, students, and other stakeholders construct notions of quality of education, quality of teaching, and quality of student learning.

Namibia is particularly proud of its history of introducing ideas of democratic education and constructivism into its education system. These ideas which strongly under-gird the educational philosophy of the country, grew out of the education system structured in exile, particularly in refugee camps in Angola, during the long war for independence against South Africa. Wishing to address the vestiges of apartheid in the country as quickly as possible, education was used after independence in 1990 as one of the main tools of developing a democratic and equitable society. This is a reason why Namibia has perhaps the most explicitly theory-based education system on the continent (Zeichner and Dahlstrom 1999).

Despite strong and explicit theory-based policies in Namibia, and a strong three-year preservice teacher education diploma program, the Basic Education Teacher Diploma (BETD), classroom practice on the whole does not reflect the policies and vision of education quality outlined above. Teacher-centered memorization-based classroom approaches continue to be the norm. The definition of good quality of student learning within the Namibian education system is likewise complex and contradictory. National policies define good student learning according to constructivist principles, involving students in construction of meaning as well as analytical and critical thinking. The examination system, however, tends to test memory rather than the students' abilities to think creatively and critically.

The dissonance between education theory and practice which is found in Namibia is not unusual. The same phenomenon occurs in many countries presently implementing

various forms of active learning and learner-centered education, making this study of how teacher come to understand and practice active learning effectively of wider interest than just Namibia (ADEA 2004; ADEA forthcoming; UNESCO 2004).

In addition to gathering in-depth information on teachers' perspectives on quality, its relationship to shaping practice, and the factors that have influenced constructions of quality and practice, the study also probes, as an important contextual issue, the complex role of a variety of mediating factors in helping or hindering the process by which teacher learning translates into good practice, and, further, how good teacher practice leads to student learning. The conceptual framework below outlines this.

Conceptual Framework

The conceptual framework for the study rests on the assumption that the following relationships influence teaching practice and student learning.

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

Despite the range of mediating factors that stand as help or hindrance between teacher learning and student learning, teachers' opportunities to learn and change are critical, the element in the process that has the strongest impact on quality of student learning. This conceptual framework outlined above can be visualized in the following way:

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

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

teachers' understanding of new idea
teachers' commitment to change

relevance of curriculum
enabling policies
cultural factors
community support
school leadership, school climate
teacher motivation, status
level of support at the school level
resources available to teachers
etc.

- To create:

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

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

students' abilities, motivation, and prior school experience
students' and teachers' time on task
student' and communities' attitudes to education
socio-economic status, health status
culture, child labor requirements
etc.

- To create:

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

The study will focus on the first part of this conceptual framework, primarily attempting to draw relationships between teacher learning and teaching practices. Further inferences will be drawn, if possible, between teacher practices and student learning.

Study Design and Methodology

Overview

In order to create the understandings of teacher learning and its relationship to teacher practice, a qualitative study has been carried out, gathering information and perspectives on practice from a group of 40 experienced grade 4 teachers in 20 schools. Through the use of open-ended questionnaires, teachers were asked to reflect in depth upon their

opportunities to learn, from preservice teacher education through inservice professional development, as their practice has been shaped over the years. Teachers were also observed while teaching in order to establish a sense of their practice. School principals in the 20 schools were also interviewed and focus-group discussions were conducted with parents and students. Quantitative demographic information has been collected from the 20 schools on general indicators of student success, and school, student and community characteristics.

Sample size and school/teacher selection

The sample of 20 schools and 40 teachers is small. The results are not, therefore, representative or statistically significant, as is the case in most qualitative studies. However, the results are expected to be valid since they are proving to have a high degree of internal consistency from a variety of data sources. The study should, therefore, have the power to indicate significant trends.

The samples of schools and teachers were selected purposively, which is common practice in qualitative research, meant to capture, in particular, the influence of ongoing school- or cluster-based teacher professional development programs on teacher learning and teacher practice. Of the 20 schools in the sample, 10 schools have participated in ongoing school-based teacher professional development programs for three to four years (under the USAID-funded BESII and BES3 programs); the other 10 schools have participated in the more episodic and centralized professional development organized by a variety of donors and the Ministry of Education. Two teachers were interviewed and observed at each school, one male and one female.

All of the schools in the sample were in two close-by regions in northern Namibia in the Ondangwa area, Oshikoto Region and Oshana Region. The schools selected were all grade 1-7 schools of comparable size, mainly in rural geographic locations, or near rural towns, with similar demographics. Likewise, teachers selected had relatively similar characteristics.

The focus teachers are all grade 4 teachers with between 5 and 7 years of teaching experience primarily in language, science, or mathematics. All teachers in the sample completed the three-year BETD program either at a college of education or through distance learning.

The rationale for the design, in which school and teacher characteristics are relatively similar, is to make participation in an ongoing school-based professional development program the main difference between the two groups of schools and teachers.

Data sources

The study data sources are as follows:

- Through the use of open-ended interview instruments, the 40 grade 4 teachers were asked to reflect in depth upon how they construct their concepts of quality, the influence of their opportunities to learn on concepts of quality and on practice from preservice teacher education through inservice professional development, and how both concepts of quality and practice have changed over the years.
- Classroom observations has established a sense of the 40 teachers' practice in order to compare the way they describe their practice with how they teach.
- Interviews with the 20 school principals were conducted to gather further information about issues of quality at the school level, school leadership, the principals' role in instructional leadership, the creation of communities of practice and positive school climate. Information on the professional development programs carried out at the school presently and in the past were gathered from various sources including the principals.
- Focus-group discussions were carried out with students from the teachers' classes to gain students' perspectives on quality through how they describe what and how they learn and what kinds of teaching practice they like and learn from.
- Focus-group discussions were carried out with parents at each school to gain an understanding of their vision of quality and how they have been included in the life of the school, particularly as part of the process of drawing up school plans which is facilitated through school-based inservice programs.
- Quantitative data were collected at each school to obtain student, school, and community demographics.
- Information on mediating factors were collected from all sources including the teachers, school principals, community members, education officials, and from the quantitative data to be collected at each school.
- Information on student achievement intended to be gathered by proxy from the 20 schools on general school success rates on the SAQMEC examinations and the grade 7 primarily leaving examinations has proved difficult to obtain. We are presently looking at the results of the first ever formal assessment done in Namibia (conducted after the study information had been collected) and will try to use these data as proxies for school quality for the schools in the pilot study sample that also took part in the national assessment.

Development of instruments

Instruments were developed cooperatively between EQUIP1/AED and NIED staff and were field tested and modified several times.

Collection of data

Interviews were conducted by two Teacher Educators from Ongwediva College of Education and two Advisory Teachers (regional supervisors) from Oshikoto and Oshana Regions of north central Namibia. It was necessary to use interviewers from the region so that they could use the regional language in the interviews. The interviewers had some background in both the theory and practice of qualitative data collection and were further trained by NIED. However, there were several cases of thin data because of interviewers who were not sufficiently confident or experienced to probe, ask follow-up questions, ask for concrete examples, etc., all of the things that cannot be scripted in qualitative data collection. Classroom observations were conducted by two observers, the NIED research head working along with an independent consultant.

Analysis of data

In the analysis of information collected, qualitative information have been analyzed to determine teachers' concepts of quality, teachers' concepts of their practice and how it changes over time, the influence of different learning opportunities on constructs of quality and practice, and the professional development that has the greatest impact on teacher change and improvement of practice. Quantitative information on school and community demographics and the results of school assessments are being combined with the qualitative information. Approaches used are those suggested by Creswell (2005; 2003).

Concepts of importance have been identified and coded (an outline of some of the concepts concerning teachers perceptions of quality of education, quality of teaching and quality of student learning are contained in an annex). Codes were derived from significant categories of information that emerged from the data because of frequency and because of their relevance to the research questions. The basic approach used is the constant comparative and analytical induction methods, both related to grounded theory – or theory building through inductive research. Information from interviews with school heads, students, community members, and education officials have been handled in a similar way. Issues of importance that emerge across the different interview categories (teachers, school heads, students, community members, education officials) were cross-coded for synthesis and comparison. The researchers at NIED decided to use mechanical means of data coding and categorizing rather than using electronic software which, in general, is used for larger data sets than this study represents.

Collection of background information on education quality as envisioned in Namibia's policies and practices

Document analysis and interviews with various education officers are being conducted to gather background information on the history and the present education policy context in Namibia. This includes an examination of policies concerning teacher quality and teacher learning, and the present goals, structures, and implementation strategies for teacher education and professional development. As a part of this activity, we are analyzing the vision of quality of education, teaching, and learning that is explicit or implicit in the

professional development program(s) and develop an understanding of what teachers are meant to do, or do differently, as a result of their participation in different learning opportunities.

Literature review

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

Study results and report

The study report is in an early first-draft form and will be available in final form in February 2006. Further reports will be generated by the rich data set throughout the first two quarters of 2006.

Information dissemination on the study findings

It is important to assure that the study findings are used within the Namibian education system as the basis for discussion and reflection on the effectiveness of different approaches to teacher learning. NIED is starting this process by organizing a workshop in mid-January at which the study findings will be discussed with stakeholders. It is also important that the results of the study be reported back to those who participated in the study and provided information on their teaching practices and their schools through interviews. Ongwediva College of Education will assure that the study report and results are disseminated to the participating schools.

Timetable for study activities

The following matrix outlines the timetable for study activities. Comments concern primarily activities that took place on time or were delayed because of NIED scheduling difficulties.

Activity	Scheduled Timing	Comment
Collect background and context information	Throughout study	Collection of information has taken place throughout
Initiate design process with NIED	October 2004/January 2005	Design process initiated on time
Finalize design of the	January/February	Design process extended

study with NIED	2005	into March and April because of scheduling difficulties in NIED
Finalize contract with NIED	February 2005	Contract with NIED finalized in April
Develop data collection instruments	January/February 2005	Instruments developed between March and May 2005, delayed because of other activities scheduled by NIED
Identify districts and schools for data collection	January/February 2005	Activity delayed and schools were identified between March and May 2005
Identify and train data collectors	February 2005	Delayed. Took place in April and May 2005
Pilot study procedures and instruments	February 2005	Took place in May 2005
Collect information from teachers and other in schools	March – May 2005	Data collection took place in August-September 2005, delayed because of NIED scheduling
Analyze data and write draft study report	July 2005	Analysis started in September but was slow because of scheduling at NIED
First draft completed	July 2005	December 2004
Final study report completed	October/November 2005	Expected to be finished in February 2006
Information dissemination activities	November 2005	Planned to start in January 2006

Relationship to Cross-national Synthesis of Education Quality

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

The individual pilot studies and the Cross-national Synthesis are intended to generate in-depth information for policy makers, planners, program implementers, and evaluators on *process* factors at the school, classroom, and community levels that relate to education

quality. The pilot study of teacher professional development in Namibia will make an important contribution to the Cross-national Synthesis.

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